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# TRACING THE PROGRESS TOWARD THE ASEAN ECONOMIC COMMUNITY

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# EXECUTIVE SUMMARY

## 1. The Background and objective of the project

The success of long-term stable economic development in ASEAN countries depends on both the stimulation of intra-regional demand, and to opening up the region to outside demand. The ASEAN Economic Community has the potential to meet these conditions for achieving long-term stable development in this region. Free flows of goods, services, investment, capital and skilled labor would promote both regional domestic demand on the one hand and the competitiveness and attractiveness of this region in the global market on the other. At the same time, ASEAN has the potential to play an important role in re-balancing the global economy, by promoting demand growth in the regional market. In light of recent challenges in this region, we have analyzed the progress of liberalization in major sectors as the region moves toward the ASEAN Economic Community (AEC).

The objective of this research project is to develop quantitative measures regarding three core elements of the ASEAN Blueprint, in order to trace the progress toward the AEC. These elements are the free flow of services, goods, and investment. The expected role of our quantitative measures is to facilitate the implementation of the AEC Blueprint by ASEAN countries. In the process of implementing the Blueprint, progress toward the goals needs to be made clear, in order to ensure that all members continue implementing the necessary policy measures, and to prevent any member countries from falling behind. Quantitative measures can play a useful role in highlighting milestones and signposts on the path towards the ultimate goals.

Regarding the degree of free flow of services, we have studied air transportation, maritime services, and telecommunication services by developing restrictiveness indices. In the case of the freedom of flow of goods, we have analyzed logistics service liberalization, focusing on customs procedures and national Single Windows. Trade cost estimation between ASEAN countries and major trading partners has been carried out using commodity trade statistics. The freedom of flow of investment has been studied by focusing on quantitative measures of FDI restriction and investment-related issues in order to provide assessments of FDI policy regimes and the FDI policy environments of the ASEAN countries. Our quantitative measures have been developed using various methods, such as questionnaires, statistical analyses, and firm-level surveys. There has been close collaboration with many researchers from various countries including 10 ASEAN countries.

## 2. Major findings

There are significant challenges associated with examination of the degree of liberalization inherent in policy regimes. First, there are vast amounts of information related to regulations and treatments. Second, we must collect necessary information, based on interviews with sectoral experts, in order to clarify the actual situation and to obtain correct interpretations, because administrative documents and other information often include many technical issues and much technical language. In order to cope with these challenges, we have collected the information on actual policies in close collaboration with researchers from 10 ASEAN countries. In addition, quantitative analyses based on statistical and firm-level data have been conducted to provide a broad-ranging overview.

### 2.1Free Flow of Services

**Air Transportation Services:** Although most ASEAN countries appear relatively liberal, there are still barriers remaining, which are increasingly preventing effective competition.

We found that only two countries have so far ratified the ASEAN Multilateral Agreement. There are also still two countries that have retained the option to impose restrictions on international and domestic charter flights, although charter flights are not as significant factors in the competitive environment as they used to be. In addition, government subsidies for domestic airlines are still one of many remaining problems.

**Maritime Services:** Regarding restrictions on trade in mode 1 (cross-border trade), only three countries have stated that they will grant exemptions from cargo restrictions. Concerning restrictions on mode 3 (commercial presence), there is no ASEAN country meeting the Blueprint target by 2010 in all maritime services. In most countries, port operations are still government-owned. In addition, half of the ASEAN countries retain discriminatory licensing conditions for foreign suppliers.

**Telecommunication Services:** Only two countries meet the Blueprint’s target in respect of foreign equity limits on investment in telecommunication service providers. Most countries are relatively even-handed in their regulation of facilities-based and resale-based services. However, only a minority of ASEAN countries have moved comprehensively to general, rather than individual, licensing of telecommunications providers.

### 2.2Free Flow of Goods

**Customs Clearance:** All countries are participating in regional cooperation efforts to simplify and harmonize customs clearance and to introduce mutual recognition of conformance assessments, and most countries are participating in efforts to introduce National Single Windows, and integrate these into an ASEAN Single Window. However, there are variations caused by differences in levels of development, such as the degree of usage of electronic filing of customs documentation. In addition, although most ASEAN counties are relatively transparent about their trade regulations in general, very few are fully transparent about ex-post performance, such as measures of customs clearance time.

**Trade Cost estimation:** The trade cost of ASEAN countries has been on a declining trend as a whole. In addition, the various trade costs in the ASEAN countries appear to be converging to the lowest cost country. Building on the calculation of the trade cost in ASEAN, we found the presence of a scale effect in trade cost. In addition, the low general quality level of institutions and infrastructure of the ASEAN countries increases trade cost, particularly for seaborne trade. These results suggest that efficient logistics and distribution, as well as improvement of quality of institution and infrastructure are important factors for trade cost reduction.

## 2.3Free Flow of Investment

Based on examination of legal documents relating to FDI, plus additional supplementary information collected from the ASEAN countries, FDI policy regimes in each country were assessed, and the scores to describe the degree of their openness were constructed. We found that ASEAN countries have restrictive FDI regimes in the areas of the movement of investors, and screening and appraisal procedures. There are wide variations among countries in scores for these areas, and for the area of national treatment.

Restriction on market access is considered to be the most important policy relating to inward FDI, and regulations are rather relaxed in the manufacturing sector compared to the high levels of restriction found in the public and service sectors. Although variations among countries are found, tight restrictions are often imposed in service sectors such as information and communication.

In addition, it was found through firm-level survey that various sorts of indirect barriers to FDI still exist in this region, and that the main problems are concerned with FDI facilitation. There is plenty of room to improve FDI facilitation, in particular institutional problems, such as lack of transparency, and implementation problems such as complicated procedures.

# 3. Policy Implications

**Air Transportation Services:**

- There are as yet only a few countries meeting the ASEAN Blueprint targets. ASEAN members should work towards further reform of their air services agreements, and should achieve much greater transparency in their provisions.

**Maritime Services:**

- There are only a few counties that have stated that they grant exemptions from restrictions on cabotage (freight transport between two points in the same country). Therefore, ASEAN countries should make more effort to reduce the scope of these restrictions. Also, all countries should be looking to meet the Blueprint target of allowing at least 51% foreign ownership of maritime services companies by 2010.

**Telecommunication Services:**

- Most countries have not been able to meet the Blueprint's foreign equity targets in all telecommunication services, even on an MFN (Most Favored Nation) basis. The remaining restrictions on foreign equity limits should be phased out. Also, the problem of the persistence of very high market shares held by incumbent service suppliers needs to be solved.

**Customs clearance:**

- There are large variations in the extent to which countries have set targets, used information technology, and performed risk assessments is customs clearance. These variations partly reflect levels of development of technology. Region-wide technology cooperation in these fields is necessary to eliminate these differences in ability to implement reforms
- There is room for improvement in transparency relating to ex-post performance. In addition, the publication of clearance times would provide an acid test as to whether ASEAN cooperation efforts are achieving their ultimate aim.

**Trade Cost**

- Ad valorem trade costs have a tendency to decrease and converge to the lowest-cost country. For further reduction in trade cost, the efficiency of the logistics and distributions sectors, and the quality of infrastructure related to transportation, such as port infrastructure, roads and railroads, should be improved.

**FDI Climate**

- In order to promote FDI policy liberalization, the ASEAN countries should use various existing frameworks. In particular, ASEAN should use the ASEAN Comprehensive Investment Agreement (ACIA).
- To overcome obstacles concerning FDI facilitation, the ASEAN countries should actively use various cooperation programs with developed countries to improve the human resources engaged in the implementation and enforcement of FDI policies.
- Monitoring of the achievement of FDI liberalization and facilitation has to be emphasized, in order to achieve a freer FDI environment.

# CHAPTER 1

# Overview:
# Tracing the Progress toward the ASEAN Economic Community

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*The objective of this Chapter is to provide an overview of the ERIA Research Project,"Tracing the Progress toward the ASEAN Economic Community". After looking at the current situation of the ASEAN economies in the global market, we review the scope and visions of the ASEAN Economic Community (AEC) based on the ASEAN Blueprint. The objective of our research project is to develop quantitative measures regarding three core elements of a key characteristic of the ASEAN Blueprint, that is, the free flow of services, goods, and investment, in order to trace the progress toward the AEC. Concerning the free flow of services, we have studied three key service sectors, namely air transportation, maritime services and telecommunication services, to map the existing policy space. Mapping actual policies in these examinations helps to indicate the extent of real policy reform that will be needed in each ASEAN member country in order to achieve the liberalization laid out in the AEC Blueprint. As for the free flow of goods, our project has conducted research on the progress of trade facilitation in each ASEAN country by examining two issues, that is, an examination of implementation status of the ASEAN Single Window in each country, and quantitative analysis of trade costs between ASEAN countries and outside major trading partners. Regarding the free flow of investment, we have investigated and evaluated the restrictiveness of FDI policy regimes and environments in the ASEAN countries based on a questionnaire survey and study of the relevant legal documents. In the light of these findings, we present several policy implications for the implementation of the AEC Blueprint.*

## 1. Introduction

The global financial crisis originated from the collapse of the housing market, and the subsequent liquidity and confidence crisis in the US has triggered a chain reaction of economic turmoil in the global economy. Although the financial and economic crises hit the US, Europe and Japan immediately and significantly, ASEAN economies have been affected rather indirectly through shrinking exports brought about by the collapse of demand in major global markets. According to Asian Development Outlook 2009, updated in September 2009, the average GDP growth rate in Southeast Asian countries is estimated to have been 0.1% in 2009, while it was 4.1% in 2008. Likewise, the World Bank reported in the Prospects for the Global Economy 2010 that the simple average GDP growth rates at market price for seven countries from ASEAN is estimated to have been 1.04% in 2009, while it was at 4.3% in 2008. Due to the collapse in external demand in late 2008 and early 2009, slowdown of the larger export-oriented economies, Malaysia, Singapore and Thailand, and energy exporter, Brunei Darussalam, and Cambodia which depends on tourism, clothing exports and FDI, is relatively serious, and negative GDP growth rates are expected in these economies in 2009[1].

Most of the ASEAN economies, however, have already begun to rebound from the downturn since the middle of 2009. According to the Asia Economic Monitor in December 2009, by the Asian Development Bank, in 2010 the GDP growth rates of nine ASEAN countries are expected to be restored and mark positive values. Indonesia, the Lao PDR and Vietnam are projected to attain at least a 5% GDP growth rate. This strong rebounding is due to timely and forceful fiscal stimulus programs and easing monetary policies by the governments in this region, and improving the external economic environment. Generally speaking, economic decline in the ASEAN countries has been much less serious and recovery is much quicker than with the Asian financial crisis in 2007/2008. The current challenge in this region is to maintain economic recovery and to realize stable long-term growth.

Based on the experiences gained from the Asian financial crisis, countries in this region have restrained foreign debt growing and engaged in regional financial cooperation, in order to prevent the resurgence of a crisis. Therefore, currency and financial market turmoil in this global

[1] ADB outlook 2009 updated.

financial crisis was not as significant as in the Asian financial crisis. However, the impact of the global financial crisis in this region resulting from a reduction in international trade has severely affected the economies of ASEAN countries. Sharp decreases of exports to the US and EU areas have demonstrated vulnerability in the East Asian region including ASEAN countries. In other words, this region's high dependency on external demand should be reduced to realize stable long-term growth. East Asian economies, including ASEAN members, need to rebalance sources of growth by stimulating domestic demand.

The export dependency of ASEAN countries is relatively high. The average share of exports in the total GDP of eight ASEAN countries (except Singapore and Myanmar) is 63%, much higher than the world average of 30%. In addition, ASEAN countries' share of regional trade in each production stage, i.e., capital goods, intermediate goods and consumption goods are still relatively low compared to EU and NAFTA (Table1). Taking the size of population and growth of the middle income class into consideration, potential domestic demand in ASEAN countries remains big, and there seems to be plenty of scope for expanding regional trade[2]. Regional economic integration into ASEAN can thus be a key to promoting domestic demand and rebalancing sources of demand in this region.

**Table 1: Share of regional trade in 2008.**

| ASEAN | | | EU15 | | | NAFTA | | |
|---|---|---|---|---|---|---|---|---|
| Capital goods | Intermediate goods | Consumption goods | Capital goods | Intermediate goods | Consumption goods | Capital goods | Intermediate goods | Consumption goods |
| Export | | | Export | | | Export | | |
| 22.54% | 25.50% | 16.76% | 46.51% | 57.05% | 63.56% | 42.70% | 49.56% | 53.74% |
| Import | | | Import | | | Import | | |
| 16.15% | 21.05% | 30.86% | 51.82% | 49.67% | 54.49% | 29.85% | 37.17% | 22.21% |

*Notes*: Calculated by UN Commodity trade statistics at BEC. As for ASEAN, Laos and Myanmar does not included because of data availability.

[2] The populations of the ASEAN 10, the EU27 and NAFTA in 2008 are 575million, 497 million and 444 million respectively. Moreover, the Asian Development Bank's key indicator in 2009 states that "The emergence of a large and rapidly growing urban middle class in the region is a key to increasing domestic demand".

At the same time, regional economic integration among the ASEAN countries should be open to non-ASEAN countries. Foreign direct investment from outside the region, and extra-regional trade remain the most essential factors influencing the development of the ASEAN countries, since they also bring about technological progress and high value-added production. Moreover, improving cooperative economic relations with very competitive neighboring countries, particularly China and India, is central to the realization of long-term stable economic development in the ASEAN countries. As stated in the ASEAN Economic Community Blueprint, ASEAN should act in accordance with the principals of being open and outward-looking in establishing the ASEAN Economic Community, and the ASEAN should also be a region fully integrated into the global economy.

The success of long-term stable economic development in ASEAN countries depends on both stimulation of intra-regional demand and opening up to outside the region. The ASEAN Economic Community, which aims to become a single market and have production integrated into the global market so as to achieve high competitiveness and equitable development, has the potential to meet the conditions for realizing long-term stable development in this region. Achieving a free flow of goods, service, investment, capital and skilled labor promotes both regional domestic demand on the one hand and the competitiveness and attractiveness of this region in the global market on the other. At the same time, ASEAN has the potential to play an important role in re-balancing the global economy by promoting the large demand in the regional market. In light of these recent challenges in this region, we have analyzed the progress of the degree of liberalization in major sectors as the region moves toward the ASEAN Economic Community (AEC).

The remainder of this chapter is organized as follows: Section 2 describes the targets of the AEC by reviewing the scope and structure of the AEC Blueprint. Section 3 introduces an outline for and objectives of our research project. Sections 4 summarizes the key findings of each study on the three core elements, namely free flow of services, trade and investment. Based on the discussion in Section 4, we derive policy implications before discussing a general policy recommendations in Section 5.

## 2. The ASEAN Economic Community and the AEC Blueprint

The vision of the ASEAN Economic Community has started to proceed toward the realization since the Bali summit in October 2003, at which the ASEAN leaders stated that the ASEAN Economic Community should be the goal of regional economic integration by 2020. Subsequently, development of a single and coherent blueprint with clearly targets, and gives implementation timelines for, advancing the AEC by 2015 was agreed at the economic ministers' meeting in August 2006. At the 12th ASEAN Summit in 2007, the leaders signed the Cebu Declaration on the Acceleration of the Establishment of an AEC by 2015, and then adopted the ASEAN Economic Blueprint at the 13th ASEAN Summit in the same year, to serve as a coherent master plan to guide the establishment of the AEC.

The ASEAN Blueprint describes the vision of the AEC, which is the realization of the end goal of economic integration, and establishes ASEAN as a single market and production base in which there is a free flow of goods, services and investments, a freer flow of capital, equitable economic development and reduced poverty and socio-economic disparities, as declared in the ASEAN Vision 2020, agreed at the ASEAN Summit in 1997. Relevant sectoral ministerial bodies have responsibility for implementation, and the ASEAN Economic Ministers are accountable for the overall implementation of the Blueprint. The Secretary General of ASEAN must report the progress to relevant ministerial meetings and at the summit. Major means for accomplishment of the Blueprint could be its supervision and surveillance mechanism, led by the ASEAN secretariat. The execution of evaluation functions by using the AEC scorecards, which are used to assess the progress of the work plan for the AEC.

The AEC Blue print presents the visions of the AEC, as well as work plans and strategic schedules for its implementation. Table 2 shows the key characteristics of the Blueprint, namely, A) establishment of a single market and production base, B) realization of a highly competitive economic region, C) achievement of equitable economic development and D) full integration into the global economy. Each characteristic consists of several core elements and each core element has its objectives, action plans and strategic schedules. The strategic schedule in four-phased stages by 2015 is set in details under each core elements. While the expected objective of the blueprint is expected to play a role of an indicator of the goals and timeframes for developing the AEC, it is not a detailed agreement with clearly defined targets based on lengthy up-front negotiations in consideration of the gaps existing amongst Member countries (Soesastro, 2007). Soesastro (2007) also pointed out that the Blueprint still has some vaguely defined goals and missing milestones, therefore signposts should be set up along the road to indicate the progress in achieving the goals.

**Table 2; 4 key characteristics and core elements of the AEC blueprint.**

| |
|---|
| A. Single market and production base |
| A1. Free flow of goods (9 Strategic approaches) |
| A2. Free flow of services (3 strategic approaches) |
| A3.Free flow of investment (5 strategic approaches) |
| A4. Freer flow of capital (7 strategic approaches) |
| A5. Free flow of skilled labor |
| A6. Priority of integration sectors |
| A7. Food, agriculture and forestry |
| B. Competitive Economic Region |
| B1. Competition policy |
| B2. Consumer protection |
| B3. Intellectual priority rights |
| B4. Infrastructure development (10 strategic approaches) |
| B5. Taxation |
| B6. E-commerce |
| C. Equitable economic Development |
| C1. SME development |
| C2. Initiative for ASEAN Integration |
| D. Integration into the Global Economy |
| D1.Coherent approach towards external economic relations |
| D2. Enhanced participation in global supply networks |

*Source*: the AEC Blueprint.

Behind the proposal for the AEC has been rising concern that ASEAN economies lost their competitiveness against emerging markets such as China. Despite this strong common incentive, development gaps amongst member countries may often become an impediment to the implementation of the Blueprint. The actual implementing agencies, the governments of member countries, differ in their ability to implement the Blueprint, and there is no penalty for any defaulting defined in the Blueprint or in other agreements and the ASEAN Charter, which took effect in 2008 and defines the AEC. The biggest and most indispensable challenge for accomplishment of the Blueprint is to ensure implementation in each member country. Besides, the ASEAN evaluates and reports the progress in implementation by members. The ASEAN Scorecards, which are to monitor the implementation of the Blueprint, have not been disclosed publicly. It might be necessary to disclose the progresses made under the Blueprint in order to successfully achieve the AEC.

## 3. The Objectives of this Research Project

This research project is an extension of the research conducted over the last two years. An ERIA test-run project "Deepening Economic Integration" in FY2007 recognized the ASEAN's initiatives toward establishing the AEC as a crucial step in deepening economic integration in East Asia. In the second phase of the project, conducted in FY2008, quantitative measures regarding key policy pillars in the AEC Blueprint were developed, in order to complement the AEC Scorecard being developed by the ASEAN Secretariat. These quantitative measures can be described as an ERIA version of the AEC Scorecard (ERIA/AEC Scorecard). The project focused on the restrictions in the three core elements, categorized into a key characteristic of "Single market and production base", that is, trade in services, trade facilitation and FDI policy, and examined the current state of policy across countries and the changes over-time change within countries. Building on these studies, this project aims to extend and update the quantitative measures on the above three core elements in order to trace the progress toward the AEC over a wider range of sectors and time. Our quantitative measures are designed 1) to visualize the process of policy reforms, following the AEC Blueprint; 2) to provide a framework on which milestones and end goals of each element can be defined; and 3) to evaluate the current state and the progress vis-à-vis the milestones and end goals.

The most important aspect of our quantitative measures is their use as an indicator of progress towards goals, rather than a ranking across countries. The expected role of our quantitative measures is to facilitate the implementation of the AEC Blueprint. In the process of implementing of the Blueprint, the progress should be indicated on the road toward the goals in order to ensure that all members continue implementing the necessary policy measures, and to prevent any member countries from falling behind. The quantitative measures can play a useful role in providing the milestones and signposts to achieve the goals.

The quantitative measures are also useful for econometric analysis of regulations/ liberalization in each sector. Since the quantitative measures are based on detailed research, on refined classifications for each sector, we can investigate the different impacts of policy reforms, as outlined by the Blueprint, with for the purpose of deriving implications of how to prioritize and improve the wide-ranging policy reforms in the Blueprint.

In addition, when we look at the Blueprint and its quantitative measures from the view point of mechanism design, we can utilize the quantitative measures to improve the mechanism of realizing the AEC designed by the Blueprint. The key to success in creating the AEC is that the mechanism designed by the Blueprint should provide the member countries incentives to implement it. The quantitative measures enable us to assess the degree of progress made toward achieving the AEC and to identify the problem of the mechanisms applied in the member countries. In other words, we can check whether the mechanism fulfill both incentive compatibility and participation constraints for all member countries by using the quantitative measures.

This project consists of studies on three elements as noted above, that is, the quantitative measures relating to the degree of free flow of services, free flow of goods and free flow of investment. Regarding the degree of free flow of services investigated by Philippa Dee (Chapter 2 of this report), air transportation service, maritime transportation service, and telecommunication services are studied by developing restrictiveness indices. As for the degree of free flow of goods, analysis on logistics service liberalization focusing on custom procedures and national Single Windows, is conducted by Philippa Dee (Chapter 2), while trade cost estimation between ASEAN countries and major trading partners is undertaken by Patricia Sourdin and Richard Pomfret (Chapter 3). The study on trade cost provides restrictiveness indices of trade facilitation systems, and quantitative measures on the cost of trade in goods. Air transportation service and logistics service are listed among the priority integration sectors of the ASEAN Framework Agreement on Services (AFAS). In terms of the degree of free flow of investment, studies on the quantitative measures of FDI restriction and investment-related issues are conducted by Shujiro Urata and Mitsuyo Ando (Chapter 4). They present assessments of FDI policy regimes and the FDI policy environments of the ASEAN member countries. Chapter 5 provides background data, which were used to construct our quantitative measures for Chapters 2 to 4. The data are developed by working with country study members and research members of this project.

## 4. Key Findings in Each Study on Three Core Elements

### 4.1 Free Flow of Services

Promotion of the free flow of services is an essential factor in the realization of free flow of goods and investment, capital and skilled labor, which are core elements for one of the principal pillars of the single market and production base defined by the ASEAN Blueprint. The ASEAN Framework Agreement on Services (AFAS), which were signed in 1995, defined that the object of liberalization in trade in services as being to improve the efficiency and competitiveness of services, increase their production capacity, and diversify sources of service supply and destinations of service demand within and outside ASEAN[3]. The share of service sectors in industrial structures has increased in most of the member countries of the ASEAN, and thus improvement of service sector competitiveness is one of the critical issues in this region.

Dee (2010) examines three key service sectors, namely air transport, maritime services, and telecommunications services, to map the existing policy space[4]. Mapping actual policies in these examinations helps to indicate the extent of real policy reform that will be needed in each ASEAN member country in order to achieve the liberalization laid out in the AEC Blueprint. There are significant challenges associated with examination of the degree of liberalization of service sectors from the view of policy regimes. First, there are vast amounts of information related to regulations and treatments of the service sector[5]. Service trades are classified into 4 modes, i.e., cross-border trade (mode1), consumption abroad (mode2), commercial presence

[3] See for details, http://www.aseansec.org/6628.htm
[4] Dee (2010) also investigates the implementation of the ASEAN Single Window. This is more related to the section 1.5, free flow of goods, and we review the results of this sector in section 1.5.
[5] These regulatory restrictions preventing integration are categorize as follows; Derogations from national treatment which causes discrimination against foreign providers, limitations on market access which limits the number of service suppliers, service transactions, people employed and foreign equity participation, and anti-competitive domestic regulation.

(mode3) and movement of natural persons (mode4). We need to study administrative documents and other information on all modes for each service sector. Second, we must collect necessary information, based on interviews with sectoral experts in order to clarify the actual situation and to obtain correct interpretation because administrative documents and other information on service trade often includes many technical issues and much technical language, particularly on transportation and telecommunication services. It is also necessary to pay careful attention to differences between the engineering approach and the economic approach. Dee (2010) has collected the information on actual policies by using questionnaires, which were completed for each ASEAN economy over the period September 2009 to March 2010 by researchers contracted by ERIA.

#### 4.1.1 Air transport services

Air transport service is one of the priority sectors under the AEC Blueprint. Recognizing the cost of restriction imposed by air services agreements, a growing number of countries are negotiating more liberal agreements. Also domestic aviation services have been liberalized in ways such as allowing additional entry on domestic routes, and privatization of government-owned carriers. The questionnaire studies by Dee (2010) cover actual barriers to trade in air transport services. Table 3 presents an extract of the scorecard for air transport by Dee (2010).

**Table 3: Score of Restrictions on Trade in Air Transport Services (%)**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average | S.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Commercial presence (mode 3) | 18 | 9 | 0 | 55 | 32 | 27 | 0 | 18 | 0 | 18 | 18 | 17.2 |
| B. Cross-border trade (Mode 1) | 33 | 33 | 100 | 33 | 67 | 33 | 100 | 0 | 33 | 33 | 47 | 32.2 |
| C. Movement of persons (mode 4) – intra-corp. transferees | 100 | 50 | 100 | 50 | 100 | 50 | 50 | 0 | 50 | 50 | 60 | 31.6 |
| E. Ownership | 54 | 73 | 45 | 67 | 72 | 44 | 26 | 2 | 24 | 80 | 49 | 25.6 |
| F. Regulation | 24 | 16 | 21 | 32 | 16 | 37 | 21 | 5 | 21 | 68 | 26 | 17.2 |
| **TOTAL** | **40** | **44** | **32** | **55** | **51** | **38** | **22** | **6** | **19** | **61** | **37** | 17.3 |

*Source*: Excerpt from Table 2 inDee (2010)

From the result, we find that only two countries; Singapore and Thailand have so far ratified the ASEAN Multilateral Agreement. Meanwhile, Indonesia and the Philippines have retained to impose restrictions on international and domestic charter flights, although charter flights are not as significant factors in the competitive pressures as they used to be. Dee (2010) also examines the restrictions on commercial presence (mode 3). Giving an example of Singapore she points out that effective liberalization of mode 3 in air services not only requires the reform of investment law, but also requires the reform of withholding clauses in air services.

Although most ASEAN countries appear relatively liberal, there are still remaining barriers, which are becoming increasingly to prevent effective competition. In addition, government subsidies of domestic airlines are still one of remaining problems.

#### 4.1.2 Maritime Services

Regulatory restrictions on shipping services have been shown to be costly, particularly to developing countries. Also, regulatory restrictions on port services inflate the cost of maritime shipping. Improvement of maritime services by elimination of restrictions and promotion of competition are also considered an important pillar of the ASEAN as a single market.

Dee (2010) examines restrictions on the entry of new service providers and restrictions on the legal form of establishment, in a variety of maritime services separately; international shipping, cabotage, internal waterways, port superstructure, cargo handling services, storage and warehousing, freight forwarding, pilotage, towing and tying, and the maintenance and repair of vessels. Table 4 is excerpted from Table 4 in Dee (2010) and presents summary restrictiveness scores.

**Table 4: Score of Restrictions on Trade in Maritime Services (%)**

| | Cambodia | Indonesia | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|
| Movement of intra-corporate transferees (mode 4) | 71.7 | 33.3 | 61.7 | 68.3 | 58.3 | 45.0 | 68.3 | 55.0 | 57.7 |
| INTERNATIONAL SHIPPING (TOTAL) | 14.3 | 28.6 | 26.9 | 20.0 | 24.9 | 2.9 | 31.5 | 40.0 | 23.6 |
| CABOTAGE (TOTAL) | 13.0 | 26.2 | 36.5 | 52.2 | 30.4 | na | 27.8 | 54.3 | 34.4 |
| INTERNAL WATERWAYS (TOTAL) | 0.0 | 53.3 | 22.7 | 73.3 | 40.0 | na | 36.0 | 30.1 | 36.5 |
| PORT SUPERSTRUCTURE (TOTAL) | 41.7 | 16.8 | 11.7 | 75.0 | 35.0 | 66.7 | 16.8 | 29.3 | 36.6 |
| CARGO HANDLING (TOTAL) | 0.0 | 16.8 | 11.7 | 16.7 | 26.7 | 0.0 | 16.8 | 29.3 | 14.7 |
| STORAGE AND WAREHOUSING (TOTAL) | 0.0 | 16.8 | 11.7 | 16.7 | 10.0 | 66.7 | 16.8 | 29.3 | 21.0 |
| FREIGHT FORWARDING (TOTAL) | 0.0 | 16.8 | 11.7 | 16.7 | 26.7 | 0.0 | 16.8 | 29.3 | 14.7 |
| PILOTAGE, TOWING AND TYING (TOTAL) | 91.7 | 50.0 | 11.7 | 91.7 | 26.7 | 66.7 | 16.8 | 66.7 | 52.7 |
| MAINTENANCE AND REPAIR (TOTAL) | 0.0 | 16.8 | 11.7 | 16.7 | 18.3 | 0.0 | 16.8 | 29.3 | 13.7 |
| PORT OPERATION (TOTAL) | 47.9 | 49.2 | 6.3 | 50.4 | 58.3 | 16.7 | 36.0 | 52.1 | 39.6 |
| TOTAL | 21.9 | 30.8 | 19.2 | 41.9 | 31.8 | 17.6 | 26.5 | 41.1 | 28.9 |

*Source*: Excerpt from Table 4 in Dee (2010)

Regarding restrictions on trade in mode 1, only three countries; Cambodia, Indonesia and Thailand have stated that they will grant exemptions from cargo restrictions. Concerning restrictions on mode 3, there is no ASEAN economy meeting the Blueprint target by 2010 in all maritime services. In most countries, port operations are still government-owned. Dee (2010) points out that a half of the ASEAN countries retain discriminatory licensing conditions for foreign suppliers.

### 4.1.3 Telecommunication services

Actual barriers on those telecommunication services recognized as being trade-impeding are investigated in Dee (2010). Restrictions on the entry of new service providers are examined for a variety of telecommunication services separately; that is, domestic fixed line services, international services, mobile services using various technologies, data services, leased lines, internet access services and Voice over Internet Protocol telephony. Table 5 is excerpted from Table 6 in Dee (2010) and presents a summary restrictiveness scores.

**Table 5: Score of Restrictions on Trade in Telecommunication Services (%)**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **FACILITIES-BASED SERVICES (TOTAL)** | **20** | **24** | **18** | **94** | **20** | **80** | **22** | **0** | **21** | **18** | **32** |
| A. Commercial presence (mode 3) | 4 | 35 | 4 | 96 | 4 | 96 | 0 | 0 | 4 | 4 | 25 |
| B. Cross-border trade (mode 1) | 0 | 100 | 100 | 100 | 100 | 100 | 50 | 0 | 50 | 50 | 65 |
| C. Ownership | 26 | 17 | 19 | 92 | 26 | 70 | 30 | 0 | 26 | 25 | 33 |
| D. Regulation - licensing | 100 | 4 | 100 | 100 | 0 | 100 | 100 | 0 | 100 | 0 | 60 |
| **RESALE-BASED SERVICES (TOTAL)** | **18** | **45** | **17** | **99** | **20** | **96** | **23** | **1** | **3** | **18** | **34** |
| A. Commercial presence (mode 3) | 4 | 62 | 4 | 96 | 4 | 96 | 0 | 0 | 4 | 4 | 27 |
| B. Cross-border trade (mode 1) | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 50 | 50 | 70 |
| C. Ownership | 26 | 33 | 19 | 100 | 26 | 95 | 30 | 0 | 0 | 25 | 35 |
| D. Regulation - licensing | 100 | 73 | 100 | 100 | 0 | 100 | 100 | 50 | 0 | 0 | 62 |
| **LEASED LINES AND PRIVATE NETWORKS (TOTAL)** | **22** | **22** | **33** | **11** | **33** | **11** | **0** | **33** | **44** | **22** | **23** |
| A. Commercial presence (mode 3) | 22 | 22 | 33 | 11 | 33 | 11 | 0 | 33 | 44 | 22 | 23 |
| **GENERAL (TOTAL)** | **34** | **42** | **23** | **59** | **52** | **92** | **58** | **44** | **52** | **43** | **50** |
| D. Regulation - licensing | 50 | 50 | 75 | 50 | 50 | 75 | 25 | 25 | 50 | 50 | 50 |
| D. Regulation - other | 23 | 45 | 15 | 65 | 55 | 95 | 73 | 55 | 55 | 45 | 53 |
| Market structure | 92 | 8 | 8 | 33 | 33 | 92 | 8 | 0 | 33 | 17 | 33 |
| **TOTAL** | **21** | **35** | **19** | **87** | **25** | **85** | **26** | **8** | **19** | **21** | **35** |

*Source*: Excerpt from Table 6 in Dee (2010)

Regarding restrictions related to the targets of the ASEAN Blueprint, a majority of countries score poorly on restrictions on mode 1 trade. However, Dee (2010) points out that the relevant restriction on mode1 trade in telecommunication services is by now a technical restriction that has very little real relevance. As for the existence of foreign equity limits on investment in telecommunication service providers, only two countries; Singapore and Vietnam, currently meet the Blueprint's target. Dee (2010) indicates that most countries are relatively even-handed in their regulation of facilities-based and resale-based services, however, only a minority of ASEAN countries have moved comprehensively to general rather than individual licensing of telecommunications providers.

### 4.2 Free Flow of Goods

As stated in the ASEAN Blueprint, a single market for goods and services will facilitate the development of production networks in the ASEAN and enhance ASEAN's capacity as a part of the global supply chain; therefore, free flow of goods which is one of the principal means of achieving a single market and production base is regarded as an indispensable element. A broad range of issues is encompassed in the scope of the free flow of goods indicated in the ASEAN Blueprint, not only the elimination of tariffs on all intra-ASEAN goods, but also non-tariff barriers[6], rules of origin, trade facilitation by customs procedures and related information flows, customs integration, the ASEAN Single Window, and standards and technical barriers. Our project has conducted research on the progress of trade facilitation in each ASEAN country by examining two issues, that is, an examination of implementation status of the ASEAN Single Window in each country, and quantitative analysis of trade costs between ASEAN countries and outside major trading partners. Examination of the implementation of the ASEAN Single Window by Dee (2010) is conducted by questionnaires as the previous section, while quantitative analysis on trade costs by Sourdin and Pomfret (2010) used commodity trade statistics classified by transportation mode. The former deals with the Single Window program, in which concrete schedules and actions are set in the Blueprint, and the latter is relevant to the

[6] ASEAN Trade In Goods Agreement signed in 2009 sets out the details of schedules of elimination of non-tariff barriers. See (http://www.aseansec.org/22223.pdf).

more comprehensive issues of trade facilitation, including not only transaction cost related trade in goods, but also the productivity of transportation services.

### 4.2.1 The ASEAN Single Window

Dee (2010) examines the status of implementation of the ASEAN Single Window in the same way as in the previous section 4.1 on studies on the other service sectors. Based on questionnaires covering customs clearance about implementation of the National Single Windows and on cooperation to achieve and the ASEAN Single Window, the current status of implementation of the National Single Windows in member countries, transparency and due process, and each country's participation in regional cooperation efforts toward an ASEAN Single Window are examined. Table 6 is a summary of the scorecards on implementation of ASEAN Single Window of each country, excerpted from Table 8 in Dee (2010)[7].

All countries are participating in regional cooperation efforts to simplify and harmonize customs clearances and to introduce mutual recognition of conformance assessments, and most countries are participating in efforts to introduce National Single Windows and integrate these into and ASEAN Single Window. However, there are variations which are caused by differences of levels of development, such as the degree of usage of electronic filing of customs documentation. In general, Dee (2010) points out that although most ASEAN counties are relatively transparent about their trade regulations, very few are fully transparent about ex post performance such as measures of customs clearance time.

[7] Contrary to the restriction indexes of 4.1, this index is an implementation index. Thus a higher score denotes a 'better' rather than a 'worse' outcome. See more details Dee (2010).

**Table 6: Summary of implementation of ASEAN Single Window (%)**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. National Policy** | **73** | **45** | **78** | **43** | **83** | **48** | **90** | **60** | **81** | **46** | **64** |
| *A. National Single Window* | 73 | 38 | 65 | 42 | 81 | 50 | 92 | 62 | 78 | 47 | 63 |
| *B. Transparency and due process* | 71 | 57 | 100 | 43 | 86 | 43 | 86 | 57 | 86 | 43 | 67 |
| **II. Regional Cooperation** | **90** | **90** | **90** | **90** | **90** | **80** | **100** | **100** | **90** | **90** | **91** |
| **TOTAL** | **76** | **54** | **80** | **52** | **84** | **54** | **92** | **68** | **83** | **54** | **70** |

*Source*: Excerpt from Table 8 in Dee (2010)

### 4.2.2 Trade cost in the ASEAN member countries.

Sourdin and Pomfret (2010) develop a composite indicator of trade cost for each individual ASEAN countries based on the gap between cif (cost insurance, freight) and fob (free on board) values at the HS6 digit level of ASEAN exports to third countries; namely, Australia, Brazil, Chile and the U.S. Although the cif/fob measures should be treated as a benchmark rather than a perfect indicator to capture the impact of a country's commitment to trade facilitation, this measurement of trade cost is suitable as an operational definition using universally acceptable concepts, and approximating the cost of international trade as it includes transport and logistics costs, which may be driven by technical improvements as well as by improved policies and procedures. Table 7 shows the average trade cost of ASEAN countries.

On average, the trade cost of ASEAN countries has been on a declining trend between 1990-2008 as a whole. Sourdin and Pomfret (2010) also find that ad valorem trade cost for imports arriving by air are lower than by sea, and fell slightly faster compared to imports arriving by sea. In addition, they pointed out that variation in trade costs in the ASEAN countries appears to be converging to the lowest cost country, Singapore. Building on the calculation of the trade cost in the ASEAN countries, Sourdin and Pomfret (2010) conduct a regression analysis to find the determinants of ad valorem trade cost. They find that the longer the distance of transport and the larger the degree of bulkiness of an imported product, the more trade cost increases. By contrast, the larger the size of bilateral imports, the smaller the trade cost found. This result indicates the presence of a scale effect in trade cost. In addition, the low level of general quality of institutions and infrastructure of the ASEAN countries increases trade cost for seaborne only. These results suggest that efficient logistics and distributions, as well as besides improvement of quality of institution and infrastructure are important factors for trade cost reduction particularly in trade by sea, which is still major means of transportation of goods.

Based on the analysis of trade costs in ASEAN countries, Sourdin and Pomfret (2010) draw an implication for the scorecards being developed by the ASEAN secretariat to achieve the AEC Blueprint. They suggest the importance of an indicator, which can be used to provide the benchmark of best practice for reducing trade cost.

**Table 7: Average trade cost of ASEAN countries during 1990-2008.**

| Year | Brunei | Indonesia | KHM | Lao PDR | Myanmar | Malaysia | Philippines | Singapore | Thailand | Vietnam | ASEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1990** | 0.072 | 0.102 | 0.176 | 0.104 | 0.049 | 0.05 | 0.074 | 0.03 | 0.059 | 0.072 | 0.054 |
| **1995** | 0.045 | 0.073 | 0.077 | 0.08 | 0.048 | 0.032 | 0.052 | 0.021 | 0.046 | 0.067 | 0.039 |
| **2000** | 0.062 | 0.082 | 0.066 | 0.076 | 0.051 | 0.035 | 0.039 | 0.022 | 0.062 | 0.069 | 0.045 |
| **2005** | 0.047 | 0.079 | 0.061 | 0.033 | 0.054 | 0.032 | 0.05 | 0.028 | 0.059 | 0.08 | 0.048 |
| **2006** | 0.043 | 0.069 | 0.064 | 0.029 | 0.045 | 0.03 | 0.047 | 0.026 | 0.055 | 0.072 | 0.045 |
| **2007** | 0.035 | 0.064 | 0.055 | 0.051 | 0.045 | 0.031 | 0.045 | 0.026 | 0.047 | 0.067 | 0.043 |
| **2008** | 0.036 | 0.059 | 0.056 | 0.048 | 0.05 | 0.032 | 0.047 | 0.028 | 0.047 | 0.066 | 0.044 |

*Source*: Sourdin and Pomfret (2010)

### 4.3 Free flow of investment:

The member countries of the ASEAN have been quite successful in attracting FDI in recent years, and FDI inflows to ASEAN quadrupled between in 2002 and 2007. However, their performance has fallen behind China. Although ASEAN's members had been ahead of China in attracting FDI in 1980s, they have lost their commanding position since the early 1990s. It is reasonable that rising momentum towards forming the AEC was motivated by a sense of anxiety about losing attractiveness of FDI in the ASEAN. Thus one of the principal pillars of the AEC is to boost ASEAN's regional competitiveness on attracting FDI.

The chapter by Urata and Ando (2010) investigates and evaluates the restrictiveness/openness of FDI policy regimes and environments in the ASEAN countries. Based on a questionnaire survey and study of the relevant legal documents, they examine FDI policies from six aspects in 10 ASEAN member countries. In addition, they study the FDI policy environment in each member country by using an FDI firm-level survey in order to examine the information on barriers to FDI from the business point of view. The contribution of their study is to shed light on the actual FDI environment from both sides of the policies in force, and on the actual business environment, It will provide useful information on which to base new means of improving the FDI environments in the ASEAN.

#### 4.3.1 Assessment of FDI Policy Regimes in ASEAN Member Countries

Based on examination of legal documents relating to FDI, plus additional supplementary information collected from the ASEAN countries, Urata and Ando (2010) assess the FDI policy regimes in each country and construct scores to evaluate the degree of their openness. Applying a modified methodology by Golub (2003), they evaluate the restrictiveness of FDI rules in six areas. These are: foreign ownership/market access; national treatment, screening and approval procedures, boards of directors and management composition, movement of investors; and performance requirements. Evaluated scores for each industry and weighted average overall scores for the ASEAN 9 countries are shown in Table 8.

## Table 8: Restrictions on FDI rules by six areas.

| | Brunei | Cambodia | Indonesia | Lao, PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average | Standard deviation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Market access, total** | **0.24** | **0.14** | **0.36** | **0.39** | **0.32** | **0.38** | **0.26** | **0.20** | **0.42** | **0.34** | **0.31** | **0.09** |
| Agriculture, forestry and fishing | 0.10 | 0.10 | 0.40 | 0.50 | 0.10 | 0.45 | 0.35 | 0.00 | 0.50 | 0.20 | 0.27 | 0.19 |
| Mining and quarrying | 0.02 | 0.20 | 0.04 | 0.30 | 0.20 | 0.55 | 0.30 | 0.00 | 0.34 | 0.10 | 0.21 | 0.17 |
| Manufacturing | 0.05 | 0.10 | 0.21 | 0.27 | 0.13 | 0.09 | 0.10 | 0.00 | 0.16 | 0.05 | 0.12 | 0.08 |
| Services | 0.26 | 0.15 | 0.44 | 0.38 | 0.39 | 0.42 | 0.29 | 0.26 | 0.49 | 0.42 | 0.35 | 0.11 |
| **National treatment, total** | **0.80** | **0.18** | **0.20** | **0.41** | **0.83** | **0.40** | **0.28** | **0.14** | **0.00** | **0.26** | **0.35** | **0.27** |
| Agriculture, forestry and fishing | 0.75 | 0.00 | 0.00 | 0.75 | 1.00 | 0.75 | 0.75 | 0.00 | 0.00 | 0.00 | 0.40 | 0.43 |
| Mining and quarrying | 0.75 | 0.75 | 0.00 | 0.00 | 1.00 | 0.40 | 0.75 | 0.00 | 0.00 | 0.15 | 0.38 | 0.40 |
| Manufacturing | 0.75 | 0.00 | 0.14 | 0.00 | 0.78 | 0.04 | 0.00 | 0.03 | 0.00 | 0.05 | 0.18 | 0.31 |
| Services | 0.81 | 0.19 | 0.25 | 0.43 | 0.92 | 0.45 | 0.21 | 0.19 | 0.00 | 0.33 | 0.38 | 0.29 |
| **Screening & appraisal, total** | **0.43** | **0.62** | **0.79** | **0.61** | **0.25** | **0.92** | **0.11** | **0.15** | **0.50** | **0.36** | **0.48** | **0.27** |
| Agriculture, forestry and fishing | 0.00 | 0.75 | 0.75 | 0.50 | 0.10 | 0.90 | 0.10 | 0.00 | 0.50 | 0.35 | 0.40 | 0.34 |
| Mining and quarrying | 0.18 | 0.10 | 0.75 | 0.50 | 1.00 | 0.97 | 0.10 | 0.00 | 0.50 | 0.70 | 0.48 | 0.37 |
| Manufacturing | 0.19 | 0.10 | 0.75 | 0.50 | 0.21 | 0.90 | 0.00 | 0.01 | 0.50 | 0.15 | 0.33 | 0.31 |
| Services | 0.52 | 0.66 | 0.80 | 0.61 | 0.25 | 0.92 | 0.13 | 0.20 | 0.50 | 0.40 | 0.50 | 0.26 |
| **Board of directors, total** | **0.59** | **0.00** | **0.31** | **0.25** | **0.40** | **0.40** | **0.52** | **0.36** | **0.00** | **0.29** | **0.31** | **0.19** |
| Agriculture, forestry and fishing | 0.50 | 0.00 | 0.25 | 0.00 | 0.10 | 0.10 | 0.50 | 0.25 | 0.00 | 0.25 | 0.20 | 0.19 |
| Mining and quarrying | 0.50 | 0.00 | 0.05 | 0.00 | 0.10 | 0.46 | 0.50 | 0.25 | 0.00 | 0.05 | 0.19 | 0.22 |
| Manufacturing | 0.50 | 0.00 | 0.14 | 0.00 | 0.21 | 0.14 | 0.50 | 0.25 | 0.00 | 0.00 | 0.17 | 0.20 |
| Services | 0.62 | 0.00 | 0.38 | 0.27 | 0.50 | 0.47 | 0.53 | 0.39 | 0.00 | 0.36 | 0.35 | 0.21 |
| **Movement of investors, total** | **0.18** | **0.75** | **0.55** | **0.79** | **0.56** | **0.71** | **0.04** | **0.07** | **0.81** | **0.47** | **0.49** | **0.30** |
| Agriculture, forestry and fishing | 0.00 | 0.75 | 0.50 | 0.75 | 0.60 | 0.60 | 0.00 | 0.00 | 1.00 | 0.40 | 0.46 | 0.36 |
| Mining and quarrying | 0.00 | 0.75 | 0.50 | 0.75 | 0.60 | 0.76 | 0.00 | 0.00 | 0.95 | 0.25 | 0.46 | 0.36 |
| Manufacturing | 0.00 | 0.75 | 0.50 | 0.75 | 0.30 | 0.62 | 0.00 | 0.00 | 0.79 | 0.20 | 0.39 | 0.33 |
| Services | 0.24 | 0.75 | 0.56 | 0.79 | 0.64 | 0.74 | 0.06 | 0.10 | 0.79 | 0.54 | 0.52 | 0.29 |
| **Performance requirement, total** | **0.18** | **0.12** | **0.26** | **0.25** | **0.23** | **0.28** | **0.11** | **0.09** | **0.00** | **0.15** | **0.17** | **0.09** |
| Agriculture, forestry and fishing | 0.00 | 0.10 | 0.10 | 0.00 | 0.25 | 0.00 | 0.25 | 0.00 | 0.00 | 0.10 | 0.08 | 0.10 |
| Mining and quarrying | 0.00 | 0.25 | 0.10 | 0.00 | 0.10 | 0.40 | 0.25 | 0.00 | 0.00 | 0.05 | 0.12 | 0.14 |
| Manufacturing | 0.00 | 0.10 | 0.14 | 0.10 | 0.34 | 0.04 | 0.25 | 0.00 | 0.00 | 0.05 | 0.10 | 0.11 |
| Services | 0.24 | 0.11 | 0.30 | 0.25 | 0.26 | 0.35 | 0.09 | 0.12 | 0.00 | 0.19 | 0.19 | 0.11 |
| **Total Score of all sectors** | **0.394** | **0.242** | **0.375** | **0.428** | **0.438** | **0.463** | **0.237** | **0.175** | **0.300** | **0.315** | **0.339** | **0.100** |

*Source*: Urata and Ando (2010)

*Note*: Scores of service are simple average of all service sectors. The higher the values are, the higher the restrictions are imposed.

As Urata and Ando (2010) point out, ASEAN countries have restrictive FDI regimes in the areas of the movement of investors and the screening and appraisal procedures, and there are wide variations in scores for these areas, and for national treatment, among countries. Restrictions on market access is considered to be the most important policy towards inward FDI, and regulations are rather relaxed in manufacturing sector compared to the high levels of restriction found in the public sectors and service sectors. Although variations among countries are found, tight restrictions are often imposed in service sectors such as information and communication.

The examination on FDI regimes by Urata and Ando (2010) clearly shows that the degree of restriction/openness varies widely by country and sectors. They suggest that screening and appraisal which are found to be serious impediments in many countries, and market access regulations which are more restrictive in service sectors, should be improved. Service sectors, in particular, have taken up an important role in economic activity in ASEAN countries; therefore provision of greater market access should be improved in order to promote allocative and technical efficiency.

Urata and Ando (2010) analyze the FDI environment of ASEAN countries by using the information from a survey conducted on Japanese firms[8]. They categorize the problems and obstacles faced by Japanese firms operating in ASEAN countries into two groups, each consisting of four categories of problems related to FDI liberalization and six categories of problems related to FDI facilitation, based on literature surveys and discussions. Table 9 compares the results of their analysis in 2009, 2008 and 2005.

[8] The survey were “Issues and Request for Trade and Investment Activities by Country/Region” conducted by the Japan machinery Center (JMC) for Trade and Investment. See more details in Chapter 4, Urata and Ando (2010).

## Table 9: Assessment of FDI Invest Climate of ASEAN Countries by ten categories, in 2005, 2008 and 2009.

| | | Brunei | | Cambodia | | Indonesia | | Laos | | Malaysia | | Myammar | | Philippines | | Singapore | | Thailand | | Viet Nam | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2009 | 2005 | 2009 | 2008 | 2009 | 2005 | 2009 | 2008 | 2009 | 2005 | 2009 | 2008 | 2009 | 2005 | 2009 | 2005 | 2009 | 2005 | 2009 | 2005 | 2009 |
| (a) The number of Japanese affiliates in each country | | 1 | | 10 | | 659 | | 6 | | 759 | | 10 | | 419 | | 991 | | 1,577 | | 332 | | 4,764 |
| (b) Issues to be solved for FDI liberalization and facilitation | | | | | | | | | | | | | | | | | | | | | | |
| FDI liberalization | | 0 | 0 | 0 | 0 | 17 | 10 | 0 | 0 | 11 | 17 | 8 | 7 | 10 | 11 | 1 | 3 | 19 | 16 | 8 | 16 | 138 |
| i) | Restrictions on foreign entry | 0 | 0 | 0 | 0 | 10 | 5 | 0 | 0 | 5 | 4 | 2 | 2 | 7 | 6 | 0 | 1 | 8 | 6 | 3 | 5 | 59 |
| ii) | Performance requirements | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 1 | 2 | 5 | 21 |
| iii) | Restrictions on overseas remittances and controls on foreign currency transactions | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 4 | 6 | 5 | 2 | 1 | 0 | 0 | 5 | 3 | 2 | 4 | 32 |
| iv) | Restrictions on the movement of people and employment requirements | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 4 | 0 | 0 | 1 | 2 | 1 | 2 | 3 | 6 | 1 | 2 | 26 |
| FDI facilitation | | 0 | 1 | 14 | 16 | 51 | 52 | 4 | 4 | 44 | 36 | 20 | 21 | 42 | 37 | 6 | 6 | 50 | 53 | 58 | 34 | 515 |
| v) | Lack of transparency in policies and regulations concerning investment (institutional problems) | 0 | 1 | 5 | 5 | 13 | 14 | 0 | 1 | 13 | 10 | 8 | 8 | 7 | 10 | 0 | 1 | 12 | 14 | 18 | 6 | 140 |
| vi) | Complicated and/or delayed procedures with respect to investment-related regulations (implementation problems) | 0 | 0 | 3 | 5 | 23 | 21 | 1 | 1 | 14 | 14 | 7 | 7 | 16 | 12 | 0 | 0 | 24 | 24 | 19 | 14 | 191 |
| vii) | Insufficient protection of intellectual property rights | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 2 | 3 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 2 | 1 | 2 | 18 |
| viii) | Labor regulations and related practices excessively favorable to workers | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 5 | 5 | 0 | 0 | 10 | 6 | 3 | 3 | 3 | 3 | 4 | 2 | 47 |
| ix) | Underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives | 0 | 0 | 6 | 6 | 9 | 8 | 3 | 2 | 8 | 4 | 5 | 5 | 6 | 8 | 3 | 2 | 9 | 9 | 13 | 8 | 106 |
| x) | Restricted competition and price controls | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 2 | 13 |
| Total | | 0 | 1 | 14 | 16 | 68 | 62 | 4 | 4 | 55 | 53 | 28 | 28 | 52 | 48 | 7 | 9 | 69 | 69 | 66 | 50 | 653 |

*Source*: Urata and Ando (2010)

Their results show that various sorts of indirect barriers to FDI exist in this region, and the main problems are concerned with FDI facilitation. They point out that this result indicates that there is plenty of room to improve FDI facilitation in order to promote inward FDI in ASEAN. In particular, institutional problems such as lack of transparency and implementation problems such as complicated procedures, need to be resolved to promote investment activity. They also find that an access to the necessary infrastructure, human resources, and investment incentives are important factors for firms in making the decision for entering a new market or expanding operations. Compared to the results of their previous studies (Urata, Ando and Ito (2007) and Urata and Ando (2009)), it is found that seven countries in ASEAN as a whole experienced a decline in the number of issues directly hindering FDI, while they saw the increase in the number of issues indirectly doing so. They point out that this result suggests that improvement of the FDI investment climate has been achieved in ASEAN, but that more indirect barriers to FDI have emerged.

Judging from the lower number of the incidents concerning FDI related problems faced by Japanese firms compared to the previous year, ASEAN economies, on the whole seem to have improved their explicit FDI climate. However, their challenge is to remove indirect barriers to FDI, which still remain and have even increased. Addressing these challenges are steps toward the realization of the ASEAN's short and middle term goal, than is, to become an FDI-attractive region.

## 5. Policy Implications

The ERIA research project "Tracing the progress toward the ASEAN Economic Community" has aimed to evaluate the degree of implementation of the ASEAN Blueprint particularly in the free flow of service, goods and investment. Our quantitative measure is conducted by applying various methods such as questionnaires, statistical analyses, and firm-level surveys with close collaboration with many researchers from various countries including 10 ASEAN countries in order to ensure the objectivity and stringency of the analysis. Below we review and summarize several policy implications of each study, then discuss on overall research results.

### 5.1 Policy implications from research on the free flow of services

- Air transportation services: There are yet only few countries meeting the ASEAN Blueprint targets. ASEAN members should work towards further reform of their air services agreements, and should achieve much greater transparency in their provisions.
- Maritime services: Although most countries have taken a relatively liberal approach to many aspects of maritime regulation, there are only few counties that have stated that they grant exemptions from cabotage restrictions. Therefore, ASEAN countries should reduce the scope of cabotage restrictions. Also, all countries should be looking to meet the Blueprint target of allowing at least 51% foreign ownership by 2010.
- Telecommunication services: Foreign equity limitations should be phased out. Also, there remains the problem of persistent very high market shares possessed by incumbent service suppliers.

### 5.2 Policy implications from research on the free flow of goods

- There are great variations in the extent to which countries have set targets and used information technology to automate decision-making in their clearance and release procedures. Also, there is considerable variation in the extent to which risk assessment is used in customs clearance. These variations partly reflect levels of development of technology. Region-wide technology cooperation in these fields is necessary to eliminate these differences of ability of implementation.

- There is room for improvement in transparency relating to ex-post performance. In addition, the publication of clearance times would provide the acid test as to whether ASEAN cooperation efforts were achieving their ultimate aims.

- Judging from estimations of trade cost in ASEAN countries, ad valorem trade costs have a tendency to decrease and converge to the lowest-cost country. For further reduction of this trade cost, efficiency of logistics and distributions sectors, and quality of infrastructure related to transportation such as port infrastructure, roads and railroad should be generally improved.

### 5.3 Policy implications from research on the free flow of investment

- In order to promote FDI policy liberalization, the ASEAN countries should use various existing frameworks. In particular, ASEAN should use the ASEAN Comprehensive Investment Agreement (ACIA).

- To overcome obstacles concerning FDI facilitation, the ASEAN countries should actively use various cooperation programs with developed countries to improve the human resources engaged in the implementation and enforcement of FDI policies.

- Monitoring of the achievement of FDI liberalization and facilitation has to be emphasized, in order to achieve a freer FDI environment.

### 5.4 General discussion

There is still a lot of variation in the progress of elimination of restrictions among the ASEAN on the whole. The research results of each chapter suggest that many direct or indirect restrictions still remain and lack of transparency impedes goods, services and investment from movement freely in this region. Judging from overall results, ASEAN members should make greater efforts toward the goal of the ASEAN Blueprint as scheduled, and should promote regional corporation. For this purpose, monitoring system by using quantitative measures should be constructed for all elements of the ASEAN Blueprint in order to highlight concrete policy measures required. In addition, the information on quantitative measures should be made available for the public, so that not only policy makers, but also private sectors and consumers may understand the situation correctly.

Furthermore, there are more than a few cases in which the differences in the levels of economic development impede the ASEAN members from acting in concert for the introduction of new technology and systems toward regional integration such as the ASEAN Single Window project. The ASEAN members should strengthen technology cooperation necessary for regional integration such as introducing a common electronic filing system of customs documents, development of port/road/railroad infrastructure, in order to decrease the gap of ability of implementation of common integration among the member countries.

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CHAPTER 2

# Services Liberalization toward the ASEAN Economic Community

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*The purpose of this paper is to map the existing policy space in three key services sectors — air transport, maritime services (both shipping and port services), and telecommunications services — as well as to provide evidence on whether the implementation of the ASEAN Single Window is helping to achieve the broader objectives of the revised Kyoto Convention on customs procedures. By mapping actual policies, the paper gives an indication of the extent of real policy reform that will be needed in each ASEAN member country in order to achieve the liberalization targets laid out in the ASEAN Economic Community Blueprint. Some of the key findings and recommendations of the paper are as follows.*

*According to survey responses, only one ASEAN country meets the Blueprint target of allowing at least 70 per cent foreign ownership in domestically established air services companies by 2010. However, effective liberalization of trade in air services not only requires the reform of investment laws, it also requires the reform of withholding clauses in air services agreements so that at minimum, they allow substantial ownership by an ASEAN community of interests. ASEAN members should be working towards further reform of their air services agreements, and should be demanding much greater transparency of their provisions.*

*Most countries of the region have taken a relatively liberal approach to many aspects of maritime regulation. But few have stated that they grant exemptions from cabotage restrictions. ASEAN members should be looking to expand the scope of these exemptions, given how costly cabotage restrictions have been shown to be for developing countries. No ASEAN country meets the Blueprint target of allowing at least 51 per cent foreign ownership by 2010 in all maritime services. However, some countries meet it for some services.*

*Only two ASEAN countries currently meet the Blueprint's foreign equity targets in all telecommunications services. The remaining restrictions on foreign equity*

*limits are hard to understand, given the extent of existing competition in most countries, even in fixed line services. These restrictions should be phased out. The persistence of very high market shares of incumbent service suppliers in a few ASEAN countries is perhaps indicative of remaining problems with general regulation in those countries.*

*There is little apparent variation in countries' participation in formal ASEAN efforts to improve customs clearance procedures. Differences arise in the extent to which this participation is translating into better customs procedures on the ground. The publication of clearance times would provide the acid test as to whether ASEAN cooperation efforts were achieving their ultimate aims. This should be a priority for all ASEAN members.*

## 1. Services Targets in the ASEAN Economic Blueprint

The establishment of the ASEAN Economic Community is intended to deepen economic integration in East Asia as a whole. To achieve that end, the ASEAN Economic Community Blueprint lays out an ambitious reform agenda designed to establish an ASEAN single market. It envisages the free flow of services, investment, and skilled labour, along with the free flow of goods and the freer flow of capital.

In services, it is intended that by 2015, there should be substantially no restriction to ASEAN services suppliers in providing services and in establishing companies across national borders within the region, subject to domestic regulations. For four priority sectors — air transport, healthcare, e-ASEAN and tourism — this target is to be achieved earlier, by 2010. For logistics services, the target is to be achieved by 2013.

The blueprint contains detail about the scheduled sequence of events by which these targets are to be achieved. Liberalization is to occur through consecutive rounds of negotiations, every two years. The number of sectors to be liberalized is to be expanded in each round. For each new group of sectors, the liberalization commitments are to include:

- no restrictions on service delivery via mode 1 (cross-border trade, where neither the producer nor the consumer moves, and trade often occurs via the internet) and mode 2 (consumption abroad, where the consumer moves temporarily to the country of the producer), except where there are bona fide regulatory reasons, such as public safety;

- gradual expansion of the foreign (ASEAN) equity participation permitted in each sector, to be no less than 70 per cent by 2010 in the four priority sectors, and to be no less than 51 per cent by 2010 and 70 per cent by 2015 in all other sectors; and
- progressive removal of other limitations on market access via mode 3 (commercial presence, where the producer sets up a permanent commercial presence in the country of the consumer) by 2015.

The negotiations are also to set the parameters of liberalization for limitations on national treatment (ie liberalization involving the removal of discrimination against foreign providers), liberalization of service delivery via mode 4 (the movement of natural persons, whereby the individual service provider moves temporarily to the country of the consumer) and the liberalization of horizontal limitations on market access (ie limitations that apply across a range of services sectors, possibly affecting both domestic and foreign providers) by 2009. Commitments are then to be made according to these parameters from 2009.

The blueprint allows for some overall flexibilities in achieving these objectives, including via an ASEAN minus X formula (where countries that are ready to liberalize can proceed first and be joined by others later). In financial services, the process of liberalization should also take place with due respect for national policy objectives and the level of economic and financial sector development of the individual members.

The key purpose of this paper is to map the existing policy space in three key services sectors — air transport, maritime services (both shipping and port services), and telecommunications services — as well as to provide evidence on whether the implementation of the ASEAN Single Window is helping to achieve the broader objectives of the revised Kyoto Convention on customs procedures. The air transport sector is one of the priority sectors to be liberalized by 2010, while maritime and telecommunications services and customs clearance are key components of the logistics chain. By mapping actual policies, the exercise gives an indication of the extent of real policy reform that will be needed in each ASEAN member country in order to achieve the liberalization targets laid out in the ASEAN Economic Community Blueprint.

Note that the ASEAN countries have recently finalized their seventh package of commitments under the ASEAN Framework Agreement on Services. In some respects, these commitments go further than the broad targets outlined in the ASEAN Economic Community Blueprint, because they make specific commitments on national treatment and market access for each mode of service delivery in each sector. But in other respects, the seventh package of commitments still lags the targets outlined in the Blueprint. In particular, the limits on foreign equity participation in the seventh package are often less that would be required by the Blueprint in 2010. The current exercise maps the existing policy space in each sector, not just with respect to foreign equity limits, but also with respect to some of the more common limitations on national treatment and market access by mode of service delivery in these sectors.

Note too that in many ASEAN countries, the commitments made under the ASEAN Framework Agreement on Services have tended to lag behind actual practice (although this gap is closing over time). Thus an examination of current commitments in the seventh package could potentially overstate the amount of real reform required to meet the Blueprint's liberalization targets. By examining actual practice, the current exercise avoids this source of overstatement. However, the current exercise maps existing policies on a most-favoured nation (MFN) basis, meaning that it maps policies without taking into account any real, binding preferences that have been granted to other ASEAN member countries. Because of this, it *might* overstate the amount of real reform required to meet the Blueprint's liberalization targets, if those targets are to be met on a purely preferential basis (ie via commitments that apply only to other ASEAN member countries). However, this is not a foregone conclusion. Many services trade barriers are difficult or impossible to liberalize on a preferential basis. Some services trade barriers would be unwise to liberalize on a preferential basis. And the wording of the Blueprint itself only suggests preferential liberalization in the case of foreign equity limits.

The information on actual policies affecting trade in air transport, maritime and telecommunications services, and on the actual implementation of the ASEAN

Single Window, has been collected using four separate questionnaires. The questionnaire instruments are reproduced at the end of this report. The questionnaires were completed for each ASEAN economy over the period September 2009 to March 2010 by researchers contracted by the Economic Research Institute for ASEAN and East Asia (ERIA). Complete responses were received for all questionnaires from all countries, with the exception of maritime in Brunei. The researchers involved in the project, whose hard work is gratefully acknowledged, are as follows:

- Brunei — Shazali Sulaiman, KPMG Brunei;
- Cambodia — Chap Sotharith and Chiek Chansamphors, Cambodian Institute for Cooperation and Peace;
- Indonesia — Raymond Atje, Mochamad Pasha and Ira Titiheruw, Centre for Strategic and International Studies;
- Lao PDR — Leeber Leebouapao, National Economic Research Institute;
- Malaysia — Zakariah Abdul Rashid, Samirul Ariff Bin Othman, Musalmah Johan and Bashirah Lwin Thida Nwe, Malaysian Institute of Economic Research;
- Myanmar — Kan Zaw, Daw Win Myint and Nu Nu Lwin, Yangon Institute of Economics;
- Philippines — Josef T. Yap, Erlinda M. Medalla and Gilberto M. Llanto, Philippine Institute of Development Studies;
- Singapore — Hank Lim and Tay Yi Xun, Singapore Institute of International Affairs;
- Thailand — Wisarn Pupphavesa and Jirawat Panpiemras, Thailand Development Research Institute, and
- Vietnam — Vo Tri Thanh and Trinh Quang Long, Central Institute of Economic Management.

The survey responses, along with any accompanying explanatory notes that were provided by the survey respondents, have been compiled in four spreadsheets, one for each survey. The spreadsheets are an integral part of the output of this project. They make transparent and publicly available both the detailed qualitative information contained in the survey responses, as well as the methods by which summary indexes have been generated. It is anticipated that scrutiny of this detailed information by stakeholders in the ASEAN region will lead to greater general understanding of the policies and practices affecting air transport, maritime, telecommunications and customs clearance in each economy.

It should be stressed, however, that the relative rankings of countries in the results should be regarded as indicative, rather than definitive. Despite efforts to develop a common understanding about the survey questions among the respondents, there is inevitable variation in the ways in which questions have been interpreted, and in the depth and quality of responses.

The following sections summarize the survey results for each of the sectors under study. Each section begins with a discussion of the relevant regulatory regimes in that sector. As will be seen, regulatory restrictions can reduce contestability and performance and limit trade in these services in ways that go far beyond the standard definitions of barriers to trade in services. Each section then describes the survey instrument and the survey results. A final section draws together the main findings and key recommendations for achieving the services targets of the ASEAN Economic Community Blueprint.

## 2. Air Transport

### 2.1. Key features of the regulatory regime for air transport

Air transport is a priority sector under the ASEAN Economic Community Blueprint, although commitments are being negotiated separately from those under the ASEAN Framework Agreement of Services. Its inclusion in the Blueprint is notable, because a large portion of the sector is typically carved out of services agreements, including the General Agreement on Trade in Services (GATS) under the WTO. Instead, international air transport (the most intensely traded portion of the sector) has been regulated for over 50 years by a system of bilateral air services arrangements, largely outside the multilateral framework of trading rules. The bilateral system developed because international air flights require international cooperation to provide the necessary infrastructure and air traffic rights. However, the bilateral system has also created various limits on competition and trade in aviation services.

Recent studies have catalogued the key restrictions imposed by bilateral air services agreements, and have quantified the costs of these restrictions in terms of their impact on air fares and traffic volumes. While air services agreements cover a wide range of topics that would be deemed legitimate targets of regulation (such as aviation security, incident investigation, immigration and control of travel documents), they also include seven key features that have been identified by the WTO Secretariat (WTO 2006) as restricting scheduled air passenger services.

- **Designation** governs the right to designate one (*single designation*) or more than one (*multiple designation*) airline from the home country to operate the agreed services between the two countries.
- **Withholding** defines the ownership conditions required for the designated airline(s) of the foreign country to be allowed to operate the agreed services. Restrictive conditions require *substantial ownership and effective control* to be vested in the designating country or its nationals, meaning that the designated airline is the 'flag carrier' of that country. More liberal regimes are the *community of interests* and *principal place of business* regimes. Community of interests still requires substantial ownership and effective control, but it can be vested in one or more of a group of countries that are defined in the agreement. The principal place of business regime removes the substantial ownership requirement, but still requires the designated airline to be incorporated in the designating country, and to have its principal place of business there. It is thus (by a small margin) the most liberal regime, though it falls far short of the relatively generous 'rules of origin' typically written into services trade agreements. These would typically require only 'substantial business' in the designated country, irrespective of ownership.
- **Grant of right**s that defines the rights to provide air services between two countries. The dimensions in which air services agreements are generally being liberalized is in the granting of the fifth, sixth and seventh freedoms and cabotage. The *fifth freedom* is the freedom to carry passengers between two countries by an airline of a third country on a route with origin or

destination in its home country. The *sixth freedom* is the freedom to carry passengers between two countries by an airline of a third country on a route that goes via its home country. (Note that sixth freedoms can also be constructed via a combination of the third and fourth freedoms from different bilateral agreements, and so are rarely specified explicitly.) The *seventh freedom* is the freedom to carry passengers between two countries by an airline of a third country on a route with no connection to its home country. *Cabotage* is the freedom to carry passengers within a country by an airline of another country on a route with origin or destination in its home country.

- **Capacity clause** that identifies the regime to determine the capacity of an agreed service, where capacity refers to the volume of traffic, frequency of service and/or aircraft type. Sorted from the most restrictive to the most liberal regime, three commonly used capacity clauses are predetermination, Bermuda 1 and free determination. *Predetermination* requires that capacity is agreed or approved by the two governments or regulatory agencies prior to the service commencing. *Bermuda 1* gives limited rights to the designated airlines to set their capacity without government approval. *Free determination* allows the designated airlines to determine capacity outside of regulatory control.
- **Tariff approval** refers to the regime of fare setting. The most restrictive regime is *dual approval*, whereby the aeronautical authorities of both countries have to approve a fare before it can be applied. The most liberal regime is *free pricing*, where fares are not subject to the approval of either aeronautical authority. Intermediate regimes are *country of origin disapproval* (where fares may be disapproved only by the country of origin), *dual disapproval* (where both countries have to disapprove the fares in order to make them ineffective), and *zone pricing* (where parties agree to approve fares falling within a specific range and meeting certain characteristics, while outside this zone one or a combination of the other regimes may apply).
- **Statistics** provides rules on exchange of statistics between countries or their airlines. If exchange of statistics is (or can be) requested, it is a sign that the

parties intend to monitor the performance of each other's airline and is thus viewed as a restrictive feature of an agreement.

- **Cooperative arrangements** define the right for the designated airlines to enter into cooperative marketing arrangements (such as code sharing and alliances). This right is considered as a liberal feature because it provides a means to rationalize networks, in the absence of liberalization of the ownership clause.

These restrictive features of air services agreements have been shown to impose costs, by raising international airfares and restricting international traffic. Gonenc and Nicoletti (2000) and Doove et al. (2001) found a positive and significant effect of the restrictiveness of air services agreements on passenger air fares. For example, Doove et al. (2001) estimated that the restrictive provisions of the agreements in place at the time had inflated international airfares from Indonesia and the Philippines by over 20 per cent, and from Malaysia, Singapore and Thailand by 16–18 per cent. Piermartini and Rousová (2008) found that an increase in the degree of liberalization from the 25$^{th}$ to the 75$^{th}$ percentile would increase passenger traffic volumes between countries linked by a direct air service by about 30 per cent. In particular, they found that the removal of restrictions on the determination of prices and capacity, cabotage rights, and designation were found to be the most traffic-enhancing provisions.

The restrictive provisions of air services agreements also impose costs on air freight services. Most air freight is carried in the belly of passenger aircraft, and is thus affected by exactly the same provisions as passenger traffic. Freight-only flights are generally also governed by the same provisions as passenger flights, although in some instances they are granted more liberal traffic rights. Grosso (2008) found a positive and statistically significant relationship between relaxing restrictions and the value of merchandise trade. Achard (2009) found a significant correlation between liberal air services agreements and the volume of air cargo.

In recognition of such costs, a growing number of countries are negotiating more liberal air services agreements. The typical 'open skies' agreement grants third, fourth and fifth freedom rights, and removes restrictions on designation, capacity, frequencies, code-sharing and fares. Open skies agreements typically do not grant cabotage rights, nor lift foreign ownership restrictions on domestic airlines. Seventh freedom rights are sometimes included, but often restricted to cargo-only traffic.

Increasingly, countries have also liberalized their domestic aviation services, which they can do on a unilateral basis. Such liberalization has typically included allowing additional domestic and foreign entry on domestic routes, particularly by low cost carriers, and freeing up restrictions on domestic air fares. Sometimes, liberalization has also included the full or partial privatization of government-owned carriers.

As air services proper have been liberalized, restrictions on the operation of airport services have become more binding constraints to economic performance. When the incumbent airlines own, or control access to, airport services (such as gateways, landing slots, and baggage and freight handling services), they can exercise this control to thwart competition by new entrants, even when formal regulatory restrictions on entry have been removed. Increasingly, the operation of airport services has been removed from the control of incumbent airlines, been placed under independent regulatory control, and made more contestable in various ways, even if ownership of airports has stayed in government hands. Some of the ways that services have been made more contestable include having concession arrangements for baggage handling and other services, and auctioning flight slots and gate slots.

### 2.2. Scorecard for air transport

As can be seen from the above, regulatory restrictions can reduce contestability and limit trade in air transport services in ways that go far beyond the standard GATS definitions of barriers to trade in services. The questionnaire covering actual barriers to trade in air transport services therefore asks about a range of regulatory policies, whether or not they would be seen as formal barriers to trade in services.

Under commercial presence, the questionnaire asks whether there are restrictions on the entry of new service providers wanting to establish commercially, whether they are domestically-owned, foreign-invested or both. The question covers a variety of air transport services separately — international passenger services (both scheduled and charter services), international freight-only services, domestic passenger services (both scheduled and charter services), domestic freight-only services, provision of fuel, luggage and freight loading and unloading, aircraft repair and maintenance, the selling and marketing of air transport services, and the provision and operation of computer reservation systems. Note that Singapore and Brunei do not have a domestic air transport service, so they did not complete this part of the questionnaire.

The questionnaire also asks a number of questions about the provisions of air service agreements, both bilateral and plurilateral, under the heading of a restriction on cross-border trade in air services (mode 1). The reason that air service agreements restrict cross-border supply is because an airline located in a foreign country cannot offer international passenger or freight services if it does not have the necessary air traffic rights (for example, if it is excluded because of restricted designation, or because it does not meet the ownership requirements). Similarly, an airline located in a foreign country cannot offer domestic passenger or freight services unless the relevant air services agreement grants cabotage rights.

Importantly, however, air services agreements can also restrict the provision of air services supplied via commercial presence. This is because a foreign-invested airline located in the home country cannot offer international passenger or freight services from that country unless it meets the ownership requirements of the relevant air services agreement, which may include the requirement for substantial ownership and effective control by domestic entities. So even if the local investment laws allow majority foreign ownership of airlines established domestically, the provisions of air services agreements can negate the liberal nature of those investment laws.

Note that one of the questions about air services agreements is whether the country is a member of any plurilateral open skies agreements. However, for these agreements to come into force, they need to be ratified as well as signed. All ASEAN countries have signed the ASEAN Multilateral Agreement on Air Services (Manila, 20 May 2009). But only two countries have ratified it — Singapore and Thailand. Thus in the course of administering the survey, this question was refined so that it covered ratification, not just signing.

In practice, it proved impossible for the researchers to obtain complete information about the provisions of air services agreements (including ownership clauses and traffic rights). Some air transport authorities were willing to provide a breakdown of the numbers of agreements with each type of provision, though they were not willing to provide details of which countries those agreements were with. Some other countries were unwilling to provide even a breakdown of numbers of agreements. Thus it has not been possible to isolate the exact provisions that each ASEAN country applies to other ASEAN Members. The secrecy surrounding the provisions of air services agreements constitutes a major impediment to outside observers being able to monitor progress towards achieving the commitments of the ASEAN Economic Community Blueprint in air transport.

Even knowing whether a country has ratified the ASEAN Multilateral Agreement on Air Services does not resolve the uncertainty. While the agreement specifies the gradual extension of third, fourth and fifth freedom traffic rights between ASEAN Member countries, it allows countries to retain any sort of withholding clause, including ‘substantial ownership and effective control’. Thus an ASEAN Member country could pass an investment law that allowed 70 per cent foreign (ASEAN) ownership of airlines, as required by the Blueprint, and could also ratify the ASEAN Multilateral Agreement on Air Services, but if its neighbours still required ‘substantial ownership and effective control’ in order to grant designation, a majority foreign-invested airline would be unable to offer international air services out of that country. To effectively meet the ASEAN Economic Community Blueprint targets, countries would need to liberalize their withholding clauses, at minimum to allow ‘community of interests’ (ie substantial ownership and effective control by a *group* of ASEAN countries). This is not required by the ASEAN Multilateral Agreement on Air Services. Furthermore, the secrecy surrounding the provisions of air services agreements means that it is difficult for outsiders to verify whether such liberalization has taken place.

Under mode 4, the questionnaire asks about limitations on the movement of intra-corporate transferees (ie the employees of foreign-invested airline companies), which might take the form of nationality or residency requirements on certain classes of directors, executives, managers or employees, or a requirement for labour market testing to establish that there is no qualified domestic person available for a position before a foreign person can be hired.

Under ownership restrictions, the questionnaire asks whether there are maximum limits on the equity participation of either private domestic or foreign shareholders in locally established air services firms. This question covers the full variety of air transport services separately. As just noted, however, the provisions of investment laws are not necessarily the binding constraint to whether majority foreign-invested firms can offer international air transport services. The questionnaire also asks whether governments have retained special voting rights in airlines. Finally, it asks about the ownership structure of the top 5 international airports — whether they are publicly or privately owned, and whether they are publicly or privately operated.

In the final section, the questionnaire also asks about potentially anti-competitive aspects of the domestic regulatory regime. It covers how flight slots and gate slots are allocated, whether alliances and code-sharing are allowed, and whether airfares are regulated. It also asks whether the licensing conditions (if any) for foreign–invested operators of the various air services differ from the conditions for domestic operators. It covers so-called 'State aids' to the industry — whether governments subsidize domestic airlines or cover their operating losses. Finally, it asks about whether large airlines have universal service obligations, because this can potentially distort the contestability of the local market.

### 2.3. Scorecard results for air transport

As noted earlier, the detailed responses (including comments) are recorded in separate spreadsheets. For ease of summarizing the survey responses, the qualitative information about trade restrictions and regulatory regimes has been coded in a zero-one fashion, where for each question, a score of 1 has been assigned if the restriction applies, and 0 if it does not. These detailed results are shown in Table 1.

Sometimes an intermediate score is assigned for intermediate stages of restrictiveness. In the case of air transport services, partial scores are assigned as follows. For private and foreign equity restrictions, partial scores are allocated in inverse proportion to the equity limitation. For example, if equity participation is limited to 25 per cent, then a score of 0.75 is assigned, while if equity participation is allowed to reach 75 per cent, then a score of 0.25 is assigned. If there are limitations on equity participation, but no numerical limited is stated, this is taken as a sign that bureaucratic discretion is involved, and this is taken to be relatively restrictive — it is assumed to be equivalent to a 25 per cent equity limit, and so receives a score of 0.75. When scoring the ownership structure of airports, public ownership but private operation receives an intermediate score of 0.5, while public ownership and operation receives a score of 1.0, and private ownership and operation receives a score of 0. When scoring the allocation of flight and gate slots, auctioning receives a score of 0, allocation at the discretion of an independent authority, or some combination of grandfathering and auctioning, both receive a partial score of 0.5. Other allocation methods (such as by flag carrier discretion) receive a score of 1.0.

# Table 1: Restrictions on Trade in Air Transport Services (Index 0-1)

| | | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippine | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***A. Commercial presence (mode 3) - restrictions on entry*** | | | | | | | | | | | | |
| 1 | Are there policy restrictions to new entry (via commercial establishment)? | | | | | | | | | | | |
| | Any firm? | | | | | | | | | | | |
| | International air passenger transport (scheduled services) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | International air passenger (non-scheduled charter services) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | International air freight (all-cargo carriers, express delivery) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Domestic air transport (scheduled services) | na | 0 | 0 | 1 | 0 | 0 | 0 | na | 0 | 0 | 0.13 |
| | Domestic air transport (non-scheduled charter services) | na | 0 | 0 | 1 | 0 | 0 | 0 | na | 0 | 0 | 0.13 |
| | Domestic air freight (all-cargo carriers, express delivery) | na | 0 | 0 | 1 | 0 | 0 | 0 | na | 0 | 0 | 0.13 |
| | Provision of fuel | 1 | 1 | na | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.44 |
| | Luggage and freight loading and unloading | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0.3 |
| | Aircraft repair and maintenance | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0.2 |
| | Selling and marketing of air transport services | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Computer reservation system | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| | Foreign firms? | | | | | | | | | | | |
| | International air passenger transport (scheduled services) | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0.1 |
| | International air passenger (non-scheduled charter services) | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0.1 |
| | International air freight (all-cargo carriers, express delivery) | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0.1 |
| | Domestic air transport (scheduled services) | na | 0 | 0 | 1 | 1 | 0 | 0 | na | 0 | 1 | 0.38 |
| | Domestic air transport (non-scheduled charter services) | na | 0 | 0 | 1 | 1 | 0 | 0 | na | 0 | 1 | 0.38 |
| | Domestic air freight (all-cargo carriers, express delivery) | na | 0 | 0 | 1 | 1 | 0 | 0 | na | 0 | 1 | 0.38 |
| | Provision of fuel | 1 | 1 | na | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0.56 |
| | Luggage and freight loading and unloading | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0.4 |
| | Aircraft repair and maintenance | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0.2 |
| | Selling and marketing of air transport services | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Computer reservation system | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| ***B. Restrictions on cross-border trade (mode 1)*** | | | | | | | | | | | | |
| 3 | Are there restrictions on cross-border supply by foreign service providers in non-scheduled (charter) market? | | | | | | | | | | | |
| | International air passenger (non-scheduled charter services) | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0.3 |
| | Domestic air transport (non-scheduled charter services) | na | 0 | 1 | 0 | 1 | 0 | 1 | na | 0 | 0 | 0.38 |
| 5 | Has the country ratified the ASEAN Multilateral Agreement on Air Services? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0.8 |
| ***C. Restrictions on the movt of intra-corporate transferees of foreign-invested companies (mode 4)*** | | | | | | | | | | | | |
| 7 | Are there residency or nationality requirements or quotas for personnel employed by locally established foreign airline companies? | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0.8 |
| 8 | Are there categories of intra-corporate transferees whose entry and stay is subject to labour market tests? | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0.4 |
| ***D. Ownership*** | | | | | | | | | | | | |
| 9 | Is private ownership in the provision of services through commercial establishment allowed? | | | | | | | | | | | |
| | Existing operators | | | | | | | | | | | |
| | International air passenger transport (scheduled services) | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 1 | 0.48 |
| | International air passenger (non-scheduled charter services) | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 1 | 0.48 |
| | International air freight (all-cargo carriers, express delivery) | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 1 | 0.48 |
| | Domestic air transport (scheduled services) | na | 0.75 | 0.75 | 1 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.44 |
| | Domestic air transport (non-scheduled charter services) | na | 0.75 | 0.75 | 1 | 1 | 0 | 0 | 0 | 0 | 0.75 | 0.47 |
| | Domestic air freight (all-cargo carriers, express delivery) | na | 0.75 | 0.75 | 1 | 1 | 0 | 0 | 0 | 0 | 0.75 | 0.47 |
| | Provision of fuel | 0.5 | 0.75 | 0.75 | 0.75 | 0.75 | 1 | 0 | 0 | 0 | 1 | 0.55 |
| | Luggage and freight loading and unloading | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.45 |
| | Aircraft repair and maintenance | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 1 | 0.48 |

## Table 1 (Continued): Restrictions on Trade in Air Transport Services (Index 0-1)

| | | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Selling and marketing of air transport services | 0.75 | 0.75 | 0.75 | 0 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.38 |
| | Computer reservation system | 0.75 | 0.75 | 0.75 | 0 | 0.75 | 1 | 0 | 0 | 0 | 0.75 | 0.48 |
| | New entrants | | | | | | | | | | | |
| | International air passenger transport (scheduled services) | 0.75 | 0.75 | 0 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.38 |
| | International air passenger (non-scheduled charter services) | 0.75 | 0.75 | 0 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.38 |
| | International air freight (all-cargo carriers, express delivery) | 0.75 | 0.75 | 0 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.38 |
| | Domestic air transport (scheduled services) | na | 0.75 | 0 | 1 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.36 |
| | Domestic air transport (non-scheduled charter services) | na | 0.75 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0.75 | 0.39 |
| | Domestic air freight (all-cargo carriers, express delivery) | na | 0.75 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0.75 | 0.39 |
| | Provision of fuel | 0.5 | 0.75 | 0 | 0.75 | 0.75 | 1 | 0 | 0 | 0 | 0.75 | 0.45 |
| | Luggage and freight loading and unloading | 0.75 | 0.75 | 0 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.38 |
| | Aircraft repair and maintenance | 0.75 | 0.75 | 0 | 0.75 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.38 |
| | Selling and marketing of air transport services | 0.75 | 0.75 | 0 | 0 | 0.75 | 0 | 0 | 0 | 0 | 0.75 | 0.3 |
| | Computer reservation system | 0.75 | 0.75 | 0 | 0 | 0.75 | 1 | 0 | 0 | 0 | 0.75 | 0.4 |
| 10 | Is foreign ownership in the provision of services through commercial establishment allowed? | | | | | | | | | | | |
| | Existing operators | | | | | | | | | | | |
| | International air passenger transport (scheduled services) | 0.75 | 0.75 | 0.51 | 0.75 | 0.55 | 0.51 | 0.6 | 0 | 0.51 | 0.75 | 0.57 |
| | International air passenger (non-scheduled charter services) | 0.75 | 0.75 | 0.51 | 0.75 | 0.51 | 0.51 | 0.6 | 0 | 0.51 | 0.75 | 0.56 |
| | International air freight (all-cargo carriers, express delivery) | 0.75 | 0.75 | 0.51 | 0.75 | 0.51 | 0.51 | 0.6 | 0 | 0.51 | 0.75 | 0.56 |
| | Domestic air transport (scheduled services) | na | 0.75 | 0.51 | 1 | 0.51 | 0.51 | 0.6 | na | 0.51 | 1 | 0.67 |
| | Domestic air transport (non-scheduled charter services) | na | 0.75 | 0.51 | 1 | 1 | 0.51 | 0.6 | na | 0.51 | 1 | 0.74 |
| | Domestic air freight (all-cargo carriers, express delivery) | na | 0.75 | 0.51 | 1 | 1 | 0.51 | 0.6 | na | 0.51 | 1 | 0.74 |
| | Provision of fuel | 0.5 | 0.75 | 0.51 | 0.51 | 0.51 | 1 | 0.6 | 0 | 0.51 | 1 | 0.59 |
| | Luggage and freight loading and unloading | 0.75 | 0.75 | 0.51 | 0.51 | 1 | 1 | 0.6 | 0 | 0.51 | 0.75 | 0.64 |
| | Aircraft repair and maintenance | 0.75 | 0.75 | 0.51 | 0.75 | 0.51 | 0.75 | 0.6 | 0 | 0.51 | 0.49 | 0.56 |
| | Selling and marketing of air transport services | 0.75 | 0.75 | 0.51 | 0 | 0.51 | 0.75 | 0 | 0 | 0.51 | 0.75 | 0.45 |
| | Computer reservation system | 0.75 | 0.75 | 0.51 | 0 | 0.51 | 1 | 0 | 0 | 0.51 | 0.75 | 0.48 |
| | New entrants | | | | | | | | | | | |
| | International air passenger transport (scheduled services) | 0.75 | 0.75 | 0.51 | 0.75 | 0.55 | 0.51 | 0.6 | 0 | 0.51 | 0.75 | 0.57 |
| | International air passenger (non-scheduled charter services) | 0.75 | 0.75 | 0.51 | 0.75 | 0.51 | 0.51 | 0.6 | 0 | 0.51 | 0.75 | 0.56 |
| | International air freight (all-cargo carriers, express delivery) | 0.75 | 0.75 | 0.51 | 0.75 | 0.51 | 0.51 | 0.6 | 0 | 0.51 | 0.75 | 0.56 |
| | Domestic air transport (scheduled services) | na | 0.75 | 0.51 | 1 | 0.51 | 0.51 | 0.6 | na | 0.51 | 1 | 0.67 |
| | Domestic air transport (non-scheduled charter services) | na | 0.75 | 0.51 | 1 | 1 | 0.51 | 0.6 | na | 0.51 | 1 | 0.74 |
| | Domestic air freight (all-cargo carriers, express delivery) | na | 0.75 | 0.51 | 1 | 1 | 0.51 | 0.6 | na | 0.51 | 1 | 0.74 |
| | Provision of fuel | 0.5 | 0.75 | 0.51 | 0.51 | 0.51 | 1 | 0.6 | 0 | 0.51 | 1 | 0.59 |
| | Luggage and freight loading and unloading | 0.75 | 0.75 | 0.51 | 0.51 | 1 | 1 | 0.6 | 0 | 0.51 | 0.75 | 0.64 |
| | Aircraft repair and maintenance | 0.75 | 0.75 | 0.51 | 0.75 | 0.51 | 0.75 | 0.6 | 0 | 0.51 | 0.49 | 0.56 |
| | Selling and marketing of air transport services | 0.75 | 0.75 | 0.51 | 0 | 0.51 | 0.75 | 0 | 0 | 0.51 | 0.75 | 0.45 |
| | Computer reservation system | 0.75 | 0.75 | 0.51 | 0 | 0.51 | 1 | 0 | 0 | 0.51 | 0.75 | 0.48 |
| 11 | Does the government have a special government voting right in the airlines? | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0.3 |
| 12 | Ownership structure for up to the 5 most important international airports in terms of traffic (average) | 1 | 0.7 | 1 | 1 | 0.5 | 1 | 1 | 0.75 | 0 | 1 | 0.8 |
| | ***E. Regulation*** | | | | | | | | | | | |
| 14 | How are flight slots allocated in airports? | 1 | 0 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 0.5 | 0.75 |
| 15 | How are gate slots allocated in airports? | 0.5 | 0 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 0.5 | 0.7 |
| 17 | Price regulation | | | | | | | | | | | |
| | a. Does the govt regulate airfares? - on domestic routes | na | 1 | 0 | 1 | 0 | 0 | 1 | na | 1 | 1 | 0.63 |
| | - on international routes | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0.3 |
| | If yes to a), is fare discounting allowed? - on domestic routes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | na | 0 | 0 | 0 |
| | - on international routes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Table 1 (Continued): Restrictions on Trade in Air Transport Services (Index 0-1)**

| | | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | Do the licence conditions for foreign-invested providers who establish locally differ from those above? | | | | | | | | | | | |
| | International air passenger transport (scheduled services) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| | International air passenger (non-scheduled charter services) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| | International air freight (all-cargo carriers, express delivery) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| | Domestic air transport (scheduled services) | na | 0 | 0 | 0 | 0 | 0 | 0 | na | 0 | 1 | 0.13 |
| | Domestic air transport (non-scheduled charter services) | na | 0 | 0 | 1 | 0 | 0 | 0 | na | 0 | 1 | 0.25 |
| | Domestic air freight (all-cargo carriers, express delivery) | na | 0 | 0 | 1 | 0 | 0 | 0 | na | 0 | 1 | 0.25 |
| | Provision of fuel | 1 | 1 | na | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.44 |
| | Luggage and freight loading and unloading | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.2 |
| | Aircraft repair and maintenance | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.2 |
| | Selling and marketing of air transport services | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.2 |
| | Computer reservation system | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.2 |
| 20 | Does the government subsidize domestic airlines? | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0.4 |
| 21 | Has the government covered operational losses of airlines in the past ten years | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 |

To obtain a restrictiveness score for a broad restriction category, such as a score for all the restrictions affecting a particular mode of service delivery, the zero-one scores for each of the restrictions affecting that mode have been simply added together. This means that each of the different restrictions affecting that mode have been given equal weight — no attempt has been made to make an assessment of the relative severity of the different restrictions. Accordingly, the overall restrictiveness scores for broad categories of restrictions reflect the frequency, but not necessarily the severity, of individual restrictions. To normalize the scores for a group, they have then been divided by the maximum possible restrictiveness score for that group. This gives a final restrictiveness score expressed as a percentage, where a score of 75 per cent means that three-quarters of the restrictions that could potentially apply to that category of trade do in fact apply.

**Table 2: Restrictions on Trade in Air Transport Services - Prevalence (%)**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Commercial presence (mode 3) [question 1] | 18 | 9 | 0 | 55 | 32 | 27 | 0 | 18 | 0 | 18 | 18 |
| B. Cross-border trade (Mode 1) [questions 3-5] | 33 | 33 | 100 | 33 | 67 | 33 | 100 | 0 | 33 | 33 | 47 |
| C. Movement of persons (mode 4) – intra-corp. transferees [questions 7-8] | 100 | 50 | 100 | 50 | 100 | 50 | 50 | 0 | 50 | 50 | 60 |
| E. Ownership [questions 9-12] | 54 | 73 | 45 | 67 | 72 | 44 | 26 | 2 | 24 | 80 | 49 |
| F. Regulation [questions 14-21] | 24 | 16 | 21 | 32 | 16 | 37 | 21 | 5 | 21 | 68 | 26 |
| **TOTAL** | **40** | **44** | **32** | **55** | **51** | **38** | **22** | **6** | **19** | **61** | **37** |

Turning to the explicit targets of the ASEAN Economic Community Blueprint, it has been difficult to assess the full extent of barriers to trade in cross-border (mode 1) services, primarily because of the difficulty of getting full information on the provisions of current air services agreements. The information in Tables 1 and 2 reflects only the presence of restrictions on international and domestic charter flights, as well as whether a country as ratified the ASEAN Multilateral Agreements on Air Services. As noted above, only two countries have so far ratified the agreement — Singapore and Thailand. Two countries also retain restrictions on international and domestic charter flights — Indonesia and the Philippines — although with the development of low cost carriers, charter flights are not as important a source of competitive pressures as they used to be.

Restrictions on the consumption of air transport services abroad are virtually non-existent, other than through restrictions on the outward movement of consumers themselves. Hence they have not been canvassed in this study.

Turning next to the various types of restrictions on commercial presence (mode 3), ownership restrictions are the most prevalent, and other kinds of regulatory restrictions on entry less so. According to the survey responses, only one country — Singapore — explicitly meets the Blueprint target of allowing at least 70 per cent foreign ownership in domestically established air services companies by 2010. But note that if Singapore were actually to achieve 70 per cent foreign ownership of its international airline, it could well be prevented from supplying international air services to other ASEAN countries, even if they had ratified the ASEAN Multilateral Agreements on Air Services. This is because that agreement allows them to retain withholding clauses that would require Singapore to have 'substantial ownership and effective control' of Singapore Airlines by Singaporean entities in order to be a designated airline. Effective liberalization of mode 3 trade in air services not only requires the reform of investment laws, it also requires the reform of withholding clauses in air services agreements, so that at minimum, they allow substantial ownership by an ASEAN community of interests.

Many ASEAN countries also retain other types of regulatory restrictions on domestic and/or foreign entry into various air services, although these restrictions are more common for domestic air transport and ground-based services than they are for international air services. Lao PDR has the most extensive regulatory restrictions, followed by Malaysia (which has regulatory restrictions on foreign entry into a range of services), and Myanmar (which restricts commercial entry into provision of fuel, luggage handling and computer reservation systems).

As in many other services sectors, restrictions on the movement of people remain one of the most prevalent of all types of trade restrictions. Brunei, Indonesia and Malaysia retain both nationality requirements and labour market tests for various categories of managers and/or employees of foreign-invested firms. Only Singapore has a relatively liberal treatment of intra-corporate transferees.

Looking beyond trade barriers (strictly defined) to look at domestic regulatory regimes that could also be anti-competitive, most ASEAN countries appear relatively liberal. This is mainly because few retain strict government controls on air fares, and most do not impose discriminatory licensing conditions on foreign services suppliers (a notable exception here being Vietnam). Nevertheless, in most ASEAN countries (except Cambodia), the allocation of flight and gate slots is still done in ways that could potentially be anti-competitive. This is becoming an increasingly important barrier to effective competition. Furthermore, government subsidization of domestic airlines is still common, not just in small countries (Brunei, Lao PDR), but also in larger ones (Indonesia, Malaysia).

## 3. Maritime

### 3.1. Key features of the regulatory regime for maritime services

Shipping is another sector that is subject to a web of restrictive regulations that impose considerable costs, but have so far proved largely immune to bilateral or multilateral trade agreements. Donovan (undated) describes the historical development of government regulation of shipping in the United States, which has one of the most restrictive regulatory regimes in the world. PDP Australia and Meyrick and Associates (2005) give a detailed description of the development of shipping regulation in ASEAN. They note that by comparison to other regions, the policy environment in which intra-ASEAN shipping operates is relatively liberal, although cabotage restrictions remain a key market distortion.

McGuire, Schuele and Smith (2000) survey the maritime policy regimes in a number of APEC, Latin American and European countries. They describe the key restrictions affecting shipping services as follows.

- **Right to fly the national flag.** This requires ships to be registered or licensed to provide maritime services on domestic and international routes. The conditions on registration may include legitimate requirements such as meeting seaworthiness and safety requirements, but also include restrictions such as having a commercial presence in the domestic economy, and the ship being built and/or owned domestically.
- **Cabotage restrictions.** These restrict shipping services on domestic and coastal routes to vessels that meet certain conditions. Shipping services between domestic ports may be required to be carried out by domestically owned, operated, built and/or crewed ships.
- **Conferences.** These are private sector arrangements between shippers that are supposed to facilitate the planning and coordination of shipping traffic, but typically also include anti-competitive provisions. They can be open or closed. Open conferences set freight rates, but allow unrestricted entry and exit. Closed conferences set freight rates, allocate cargo and restrict membership. Governments that have enacted general competition laws usually permit the existence of conferences through exemptions from the price setting and collusion provisions of their domestic competition legislation.
- **UN Convention on a Code of Conduct for Liner Conferences (UN Liner Code).** This stipulates that conference trade between two economies can allocate cargo according to the 40:40:20 rule, whereby 40 per cent of tonnage is reserved for the national flag lines of each economy and 20 per cent is allocated to liner ships from a third country.
- **Cargo sharing.** These are other types of arrangements that stipulate the allocation of cargo on particular routes between parties to bilateral and multilateral agreements.

- **Bilateral agreements.** These are agreements between two economies that primarily restrict the supply of shipping services and the allocation of cargo. Some bilateral agreements also restrict the use of port facilities.

Few ASEAN countries have general competition law or any legislative framework for regulating the behaviour of shipping conferences. However, in recent times conferences have been subjected to increasing competition. They no longer dominate shipping routes, and are no longer regarded as the impediments to maritime performance that they once were. PDP Australia and Meyrick and Associates (2005) note that within ASEAN, cargo reservation measures have been very significantly reduced and in many cases completely abandoned. Similarly, a growing number of ASEAN economies have 'open' ship registries, which means that local ship registration is no longer tightly tied to local ownership of the shipping company. This leaves cabotage restrictions, along with inadequate and aging infrastructure, as the main impediments to economic performance in shipping services.

These regulatory restrictions on shipping services have been shown to be costly, particularly to developing countries. Kang (2000) found that the maritime restrictions imposed by goods exporting countries appear to have a much greater impact on bilateral shipping margins (as measured by cif/fob ratios) than those imposed by importing countries. He also found that in exporting countries, lowering restrictions such as cabotage and port services restrictions had a greater effect on margins than reducing restrictions on the commercial presence of foreign suppliers. In several applications of these findings, the sum total of restrictions on shipping and port services was found to have inflated shipping costs by around 30 per cent in Morocco (Dee 2006), and by around 26 per cent in Indonesia (Dee 2008).

Regulatory restrictions on port services can also inflate the cost of maritime shipping. Juhel (1999) describes the ways in which contestability is typically introduced into port services, and the way this interacts with the ownership of port assets. The coastal land and sea-land interface areas required by ports are typically retained in government ownership, so as to facilitate long-term planning and to optimize the use of coastal areas from an economic, social and environmental perspective. The basic infrastructure assets established on public land, such as breakwaters, channels, docks and inland transport connections, are also likely to be in public ownership. On the other hand, all other operational infrastructure, including berths, could be privately owned. Given that these are located on public land, there needs to be adequate leasing or concessioning arrangements, with contractual periods appropriate for the financial depreciation of the private assets. All superstructure, such as buildings, cranes and other pieces of equipment, can also be privately owned.

Contestability can be introduced into port operations by the way in which portions of the port area are allocated to private superstructure operators for specific periods of time, whether or not they plan to build their own facilities. If port traffic is enough to warrant it, several operators with equivalent handling capacity can be allowed to set up and compete for port traffic *in* the market. Where traffic only warrants a single operator, there can still be competition *for* the market, by having competition for the right to hold the concession to operate. However, if there is effective competition between ports, or between a single port and other modes of transport, this may be sufficient to prevent abuses of monopoly power in port operations.

Thus there are typically three different models of port operation, which allow increasing levels of contestability and harnessing of private sector investment potential:

- **Services port.** Here the Port Authority owns all assets and supplies services by directly hiring employees.
- **Tool port.** Here the Port Authority owns the infrastructure and superstructure, and private firms provide services by renting port assets through concessions and licenses.
- **Landlord port.** Here the Port Authority owns and manages the infrastructure, private firms are able to own superstructure and provide services, as well as renting port assets by concessions or licences.

Note that when reforms aim to convert a service port to a tool or landlord port, provision needs to be made to allow new private sector entrants access to the facilities once owned and operated by the incumbent port operator.

Restrictive port operating conditions can also impose costs on shippers. One method of inflating costs is by the mandatory provision of, and charging for, services (pilotage, towing, tug assistance, navigation aids, berthing, waste disposal, anchorage, casting off), whether or not they are strictly needed. Another is by restrictions on access to ports, or restrictions on the cargoes that particular ports can handle.

As noted, regulatory restrictions on port operations have been shown to be costly. Clark, Dollar and Micco (2004) showed first that port efficiency is an important determinant of shipping costs — improving port efficiency from the 25$^{th}$ to the 75$^{th}$ percentile would reduce shipping costs by 12 per cent. They then showed that port inefficiency was linked to excessive regulation, as well as to the prevalence of organized crime and the general condition of a country's infrastructure.

### 3.2. Scorecard for maritime services

The questionnaire covering actual barriers to trade in maritime services likewise asks about a range of regulatory policies, whether or not they would be seen as formal barriers to trade in services. The questionnaire was completed for all ASEAN countries except Lao PDR, which is landlocked, and Brunei, which did not provide consistent answers.

Under commercial presence, the questionnaire asks whether there are restrictions on the entry of new service providers wanting to establish commercially, whether they are domestically-owned, foreign-invested or both. The question covers a variety of maritime services separately — international shipping, cabotage (the provision of coastal shipping services), internal waterways, port superstructure, cargo handling services, storage and warehousing, freight forwarding, pilotage, towing and tying, and the maintenance and repair of vessels. The questionnaire also asks questions about restrictions on the legal forms of establishment, which are recognized by the GATS as restrictions on market access.

Under cross-border trade in shipping services (mode 1), the questionnaire asks about the presence of cargo sharing arrangements, whether the country imposes reciprocity requirements on the other countries providing cross-border services, and whether there are other selective restrictions imposed by government for retaliatory purposes. Few countries have completely liberalized cabotage restrictions, but a growing number of countries are gradually reducing the severity of the restrictions by granting exemptions on a case-by-case basis. So the questionnaire also asks whether such exemptions are available. Finally, this section of the questionnaire asks about the mandatory provision of port services, and restricted access to ports, as these restrictions can adversely affect cross-border shipping.

Under mode 4, the questionnaire asks about limitations on the movement of intra-corporate transferees (ie the employees of foreign-invested shipping companies), which might take the form of nationality or residency requirements on certain classes of directors, executives, managers or employees. It also asks about the permitted length of short- or long-term stay for such transferees, an aspect of the regulatory regime that is typically set horizontally by immigration departments, rather than by maritime regulation.

Under ownership restrictions, the questionnaire asks whether there are maximum limits on the equity participation of either private domestic or foreign shareholders in locally established maritime companies. This question covers the full variety of maritime services separately. It also asks whether the five most important ports follow a service port, tool port or landlord port model.

In the final section, the questionnaire asks about potentially anti-competitive aspects of the domestic regulatory regime. It asks what conditions are required to fly the national flag, whether an 'open' registry system is in place, and whether goods exporters and importers receive concessional treatment if they use national flagged vessels. It asks about the regulatory treatment of liner shipping conferences. It asks about whether terminal handling charges are regulated by government, and whether there are restrictions on port activities. It asks about the presence of discriminatory licensing requirements for foreign providers, whether cross-border provision requires the appointment of a domestic shipping agent, whether there are restrictions on who can carry non-commercial (eg government) cargoes, and whether governments have subsidized or covered the operating losses of local shipping companies.

### 3.3. Scorecard results for maritime services

As with air transport services, the qualitative information about trade restrictions and regulatory regimes has been coded in a zero-one fashion, where for each question, a score of 1 has been assigned if the restriction applies, and 0 if it does not. These detailed results are shown in Table 3.

## Table 3: Restrictions on Trade in Maritime Services (Index 0-1)

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***A. Commercial presence - restrictions on entry*** | | | | | | | | | | | |
| 1 Are there policy restrictions to new entry (via commercial establishment)? | | | | | | | | | | | |
| By any firm? | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Cabotage | nc | 0 | 0 | na | 0 | 1 | 0 | na | 0 | 0 | 0.1 |
| Internal waterways | nc | 0 | 1 | na | 0 | 1 | 0 | na | 0 | 0 | 0.3 |
| Port superstructure | nc | 1 | 0 | na | 0 | 1 | 1 | 1 | 0 | 0 | 0.5 |
| Cargo handling services | nc | 0 | 0 | na | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 |
| Storage and warehousing | nc | 0 | 0 | na | 0 | 0 | 0 | 1 | 0 | 0 | 0.1 |
| Freight forwarding | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Pilotage, towing and tying | nc | 1 | 1 | na | 0 | 1 | 0 | 1 | 0 | 1 | 0.6 |
| Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Firms with foreign participation | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| Cabotage | nc | 0 | 0 | na | 0 | 1 | 1 | na | 0 | 1 | 0.4 |
| Internal waterways | nc | 0 | 1 | na | 0 | 1 | 1 | na | 0 | 1 | 0.6 |
| Port superstructure | nc | 1 | 0 | na | 0 | 1 | 1 | 1 | 0 | 1 | 0.6 |
| Cargo handling services | nc | 0 | 0 | na | 0 | 0 | 1 | 0 | 0 | 1 | 0.3 |
| Storage and warehousing | nc | 0 | 0 | na | 0 | 0 | 0 | 1 | 0 | 1 | 0.3 |
| Freight forwarding | nc | 0 | 0 | na | 0 | 0 | 1 | 0 | 0 | 1 | 0.3 |
| Pilotage, towing and tying | nc | 1 | 1 | na | 0 | 1 | 1 | 1 | 0 | 1 | 0.8 |
| Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| 3 Are foreign maritime companies *prohibited* from establishing in a joint venture with local firms? | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Cabotage | nc | 0 | 0 | na | 0 | 1 | 1 | na | 0 | 0 | 0.3 |
| Internal waterways | nc | 0 | 1 | na | 0 | 1 | 1 | na | 0 | 0 | 0.4 |
| Port superstructure | nc | 0 | 0 | na | 0 | 1 | 0 | 1 | 0 | 0 | 0.3 |
| Cargo handling services | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Storage and warehousing | nc | 0 | 0 | na | 0 | 0 | 0 | 1 | 0 | 0 | 0.1 |
| Freight forwarding | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Pilotage, towing and tying | nc | 1 | 1 | na | 0 | 1 | 0 | 1 | 0 | 1 | 0.6 |
| Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Are they *required* to establish in a JV? | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 1 | 0 | 0 | 1 | 1 | 0.4 |
| Cabotage | nc | 0 | 1 | na | 0 | 0 | 0 | na | 1 | 1 | 0.4 |
| Internal waterways | nc | 0 | 0 | na | 0 | 0 | 0 | na | 1 | 1 | 0.3 |
| Port superstructure | nc | 0 | 1 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.6 |
| Cargo handling services | nc | 0 | 1 | na | 0 | 1 | 0 | 0 | 1 | 1 | 0.5 |
| Storage and warehousing | nc | 0 | 1 | na | 0 | 1 | 0 | 0 | 1 | 1 | 0.5 |
| Freight forwarding | nc | 0 | 1 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.6 |
| Pilotage, towing and tying | nc | 0 | 0 | na | 0 | 0 | 1 | 0 | 1 | 1 | 0.4 |
| Maintenance and repair of vessels | nc | 0 | 1 | na | 0 | 1 | 0 | 0 | 1 | 1 | 0.5 |
| 4 Which of the following legal forms of establishment are allowed for foreign maritime transport companies? | | | | | | | | | | | |
| Subsidiaries | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Cabotage | nc | 0 | 0 | na | 0 | 1 | 0 | na | 0 | 0 | 0.1 |
| Internal waterways | nc | 0 | 0 | na | 0 | 1 | 0 | na | 0 | 0 | 0.1 |
| Port superstructure | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Cargo handling services | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |

Source: Survey responses.

## Table 3 (Continued): Restrictions on Trade in Maritime Services (Index 0-1)

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Storage and warehousing | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Freight forwarding | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Pilotage, towing and tying | nc | 1 | 0 | na | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Branches | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Cabotage | nc | 0 | 0 | na | 0 | 1 | 0 | na | 0 | 0 | 0.1 |
| Internal waterways | nc | 0 | 0 | na | 0 | 1 | 0 | na | 0 | 0 | 0.1 |
| Port superstructure | nc | 0 | 0 | na | 0 | 1 | 0 | 0 | 0 | 0 | 0.1 |
| Cargo handling services | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Storage and warehousing | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Freight forwarding | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Pilotage, towing and tying | nc | 1 | 0 | na | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Representative offices | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Cabotage | nc | 0 | 0 | na | 0 | 1 | 0 | na | 0 | 0 | 0.1 |
| Internal waterways | nc | 0 | 0 | na | 0 | 1 | 0 | na | 0 | 0 | 0.1 |
| Port superstructure | nc | 0 | 0 | na | 0 | 1 | 0 | 0 | 0 | 0 | 0.1 |
| Cargo handling services | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Storage and warehousing | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Freight forwarding | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Pilotage, towing and tying | nc | 1 | 0 | na | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| ***B. Restrictions on cross-border trade (mode 1)*** | | | | | | | | | | | |
| 5 Describe restrictions on cross-border supply imposed on foreign shipping companies: | | | | | | | | | | | |
| International Shipping | | | | | | | | | | | |
| Application of principle of reciprocity | nc | 0 | 0 | na | 1 | 0 | 0 | 0 | 0 | 1 | 0.3 |
| Restrictions on the number of foreign suppliers | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| Are exemptions from cabotage restrictions available? | nc | na | na | na | na | na | na | na | na | na | na |
| Party to UN Liner Code, but Article 2 not applied | nc | 1 | 0 | na | 0 | 0 | 0 | 0 | 0 | 1 | 0.3 |
| UN Liner Code applied, including Article 2 | nc | 0 | 0 | na | 1 | 0 | 0 | 0 | 0 | 1 | 0.3 |
| Bilateral agreements including cargo-sharing clauses | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| Cargo reservation if different from the application of UN Liner Code and bilateral agreements | nc | 1 | 0 | na | 0 | 0 | 1 | 0 | 1 | 1 | 0.5 |
| Selective restrictions imposed by government for retaliatory purposes | nc | 1 | 0 | na | 0 | 0 | 0 | 0 | 0 | 1 | 0.3 |
| Cabotage | | | | | | | | | | | |
| Application of principle of reciprocity | nc | 0 | 0 | na | 1 | na | na | na | 0 | 1 | 0.4 |
| Restrictions on the number of foreign suppliers | nc | 0 | 1 | na | 0 | na | na | na | 0 | 1 | 0.4 |
| Are exemptions from cabotage restrictions available? | nc | 0 | 0 | na | 1 | 1 | 1 | na | 0 | 1 | 0.6 |
| Party to UN Liner Code, but Article 2 not applied | nc | 1 | 0 | na | 0 | na | na | na | 0 | 1 | 0.4 |
| UN Liner Code applied, including Article 2 | nc | 0 | 0 | na | 1 | na | na | na | 0 | 1 | 0.4 |
| Bilateral agreements including cargo-sharing clauses | nc | 0 | 0 | na | 0 | na | na | na | 0 | 1 | 0.2 |
| Cargo reservation if different from the application of UN Liner Code and bilateral agreements | nc | 1 | 0 | na | 0 | na | na | na | 1 | 1 | 0.6 |
| Selective restrictions imposed by government for retaliatory purposes | nc | 1 | 0 | na | 0 | na | na | na | 0 | 1 | 0.4 |
| 7 Are the following services mandatory for ships entering the port (main port only)? | | | | | | | | | | | |
| Pilotage | nc | 1 | 1 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.8 |
| Towing | nc | 0 | 1 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.6 |

Source: Survey responses.

## Table 3 (Continued): Restrictions on Trade in Maritime Services (Index 0-1)

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tug assistance | nc | 1 | 0 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.6 |
| Navigation aids | nc | 1 | 1 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.8 |
| Berthing | nc | 1 | 1 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.8 |
| Waste disposal | nc | 1 | 0 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.6 |
| Anchorage | nc | 1 | 1 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.8 |
| Casting off | nc | 1 | 1 | na | 0 | 1 | 1 | 0 | 1 | 1 | 0.8 |
| Is access to service discriminatory for foreign carriers as opposed to domestic ones? | | | | | | | | | | | |
| Pilotage | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Towing | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Tug assistance | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Navigation aids | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Berthing | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Waste disposal | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Anchorage | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Casting off | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Are there restrictions on domestic ships getting access to ports? | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Are there restrictions on foreign ships getting access to ports? | nc | 0 | 0 | na | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 |
| ***C. Restrictions on movement of intra-corporate transferees (mode 4)*** | | | | | | | | | | | |
| 8 Are there residency or nationality requirements or quotas for any categories of personnel employed by locally established foreign maritime transport services companies? | nc | 1 | 1 | na | 1 | 1 | 1 | 0 | 1 | 1 | 0.9 |
| 9 The permitted length of short-term visit (in days) for foreign personnel (eg shipping agents), and the permitted length of long-term stay (in years) of foreign intra-corporate transferees. | | | | | | | | | | | |
| Short-term | nc | 0.75 | 0 | na | 0.25 | 0.25 | 0.75 | 0.75 | 0.25 | 0.25 | 0.4 |
| Long-term | nc | 0.4 | 0 | na | 0.6 | 0.8 | 0 | 0.6 | 0.8 | 0.4 | 0.5 |
| ***D. Ownership*** | | | | | | | | | | | |
| 10 Is private ownership in the provision of services through commercial establishment allowed? | | | | | | | | | | | |
| Existing operators | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Cabotage | nc | 0 | 0 | na | 0 | 0 | 0 | na | 0 | 0 | 0.0 |
| Internal waterways | nc | 0 | 0 | na | 0 | 0 | 0 | na | 0 | 0 | 0.0 |
| Port superstructure | nc | 0 | 0 | na | 0 | 0 | 0 | 1 | 0 | 0 | 0.1 |
| Cargo handling services | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Storage and warehousing | nc | 0 | 0 | na | 0 | 0 | 0 | 1 | 0 | 0 | 0.1 |
| Freight forwarding | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Pilotage, towing and tying | nc | 1 | 0 | na | 0 | 1 | 0 | 1 | 0 | 1 | 0.5 |
| Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| New entrants | | | | | | | | | | | |
| International shipping | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Cabotage | nc | 0 | 0 | na | 0 | 0 | 0 | na | 0 | 0 | 0.0 |
| Internal waterways | nc | 0 | 0 | na | 0 | 0 | 0 | na | 0 | 0 | 0.0 |
| Port superstructure | nc | 1 | 0 | na | 0 | 0 | 0 | 1 | 0 | 0 | 0.3 |
| Cargo handling services | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Storage and warehousing | nc | 0 | 0 | na | 0 | 0 | 0 | 1 | 0 | 0 | 0.1 |
| Freight forwarding | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Pilotage, towing and tying | nc | 1 | 0 | na | 0 | 1 | 0 | 1 | 0 | 1 | 0.5 |
| Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |

Source: Survey responses.

## Table 3 (Continued): Restrictions on Trade in Maritime Services (Index 0-1)

| | | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | Is foreign ownership in the provision of services through commercial establishment allowed? | | | | | | | | | | | |
| | Existing operators | | | | | | | | | | | |
| | International shipping | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 0 | 0.51 | 1 | 0.4 |
| | Cabotage | nc | 0 | 0.51 | na | 0.7 | 1 | 1 | na | 0.7 | 1 | 0.7 |
| | Internal waterways | nc | 0 | 1 | na | 0.7 | 1 | 1 | na | 0.7 | 1 | 0.8 |
| | Port superstructure | nc | 1 | 0.51 | na | 0.7 | 1 | 0.6 | 1 | 0.51 | 1 | 0.8 |
| | Cargo handling services | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 0 | 0.51 | 1 | 0.4 |
| | Storage and warehousing | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 1 | 0.51 | 1 | 0.5 |
| | Freight forwarding | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 0 | 0.51 | 1 | 0.4 |
| | Pilotage, towing and tying | nc | 1 | 1 | na | 0.7 | 1 | 0.6 | 1 | 0.51 | 1 | 0.9 |
| | Maintenance and repair of vessels | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 0 | 0.51 | 1 | 0.4 |
| | New entrants | | | | | | | | | | | |
| | International shipping | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| | Cabotage | nc | 0 | 0.51 | na | 0.7 | 1 | 1 | na | 0.7 | 0.49 | 0.6 |
| | Internal waterways | nc | 0 | 1 | na | 0.7 | 1 | 1 | na | 0.7 | 0.51 | 0.7 |
| | Port superstructure | nc | 1 | 0.51 | na | 0.7 | 1 | 0.6 | 1 | 0.51 | 0.51 | 0.7 |
| | Cargo handling services | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 0 | 0.51 | 0.51 | 0.4 |
| | Storage and warehousing | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 1 | 0.51 | 0.51 | 0.5 |
| | Freight forwarding | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 0 | 0.51 | 0.51 | 0.4 |
| | Pilotage, towing and tying | nc | 1 | 1 | na | 0.7 | 1 | 0.6 | 1 | 0.51 | 1 | 0.9 |
| | Maintenance and repair of vessels | nc | 0 | 0.51 | na | 0.7 | 0 | 0.6 | 0 | 0.51 | 0.51 | 0.4 |
| 12 | Please indicate ownership and port type (landlord, tool or service port) for the 5 most important international ports | | | | | | | | | | | |
| | Port 1: Ownership? | nc | 1 | 1 | na | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| | Port 2: Ownership? | nc | 1 | 1 | na | 1 | 0 | 1 | na | 1 | 1 | 0.9 |
| | Port 3: Ownership? | nc | 0 | 1 | na | 1 | 0 | 1 | na | 1 | 1 | 0.7 |
| | Port 4: Ownership? | nc | 1 | 1 | na | 1 | 0 | 1 | na | 0 | na | 0.7 |
| | Port 5: Ownership? | nc | na | 1 | na | 1 | 0 | 1 | na | 0 | na | 0.6 |
| | Port 1: Port type? | nc | 1 | 0.5 | na | 0 | 0 | 0 | 1 | 0.25 | 1 | 0.5 |
| | Port 2: Port type? | nc | 1 | 0.5 | na | 0 | 0.5 | 0 | na | 0 | 1 | 0.4 |
| | Port 3: Port type? | nc | 0 | 1 | na | 0 | 0.5 | 0 | na | 0 | 1 | 0.4 |
| | Port 4: Port type? | nc | 1 | 1 | na | 0 | 0.5 | 0 | na | 0 | na | 0.4 |
| | Port 5: Port type? | nc | na | 1 | na | 0 | 0.5 | 0 | na | 0 | na | 0.3 |
| ***E.*** | ***Regulation*** | | | | | | | | | | | |
| 14 | What are the conditions that a vessel or fleet must fulfill in order to fly the national flag? | | | | | | | | | | | |
| | Commercial presence required? | nc | 0 | 1 | na | 1 | 0 | 1 | 1 | 1 | 1 | 0.8 |
| | At least 50% equity participation must be domestic? | nc | 0 | 1 | na | 1 | 0 | 1 | 0 | 1 | 0 | 0.5 |
| | At least 50% of crew required to be domestic? | nc | 0 | 1 | na | 1 | 1 | 1 | 0 | 1 | 0 | 0.6 |
| | Open registry system in place? | nc | 0 | 1 | na | 0 | 1 | 0 | 0 | 1 | 0 | 0.4 |
| | Do exporters or importers receive concessional treatment of any sort if they use national flagged vessels? | nc | 0 | 0 | na | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 |
| 15 | Regulation of carrier agreements | | | | | | | | | | | |
| | What types of conference agreements are allowed? | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| | Does the government enforce tariffs agreed upon within carrier agreements? | nc | 1 | 0 | na | 0 | 0 | 0 | 0 | 0 | 1 | 0.3 |
| | Is fare discounting allowed? | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| | Does the regulatory agency monitor conferences' activities? | nc | 1 | 1 | na | 1 | 0 | 1 | 0 | 1 | 0 | 0.6 |

Source: Survey responses.

**Table 3 (Continued): Restrictions on Trade in Maritime Services (Index 0-1)**

| | | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | Regulation of port services | | | | | | | | | | | |
| | Are terminal handling costs regulated by government? | nc | 1 | 1 | na | 0 | 1 | 1 | 1 | 0 | 1 | 0.8 |
| | Are terminal handling costs non-negotiable? | nc | 1 | 1 | na | 0 | 1 | 1 | 1 | 0 | 1 | 0.8 |
| | Are terminals restricted in the activities they can undertake (eg only container operations)? | nc | 0 | 1 | na | 0 | 1 | 1 | 0 | 0 | 0 | 0.4 |
| | Are private ports prohibited from handling general cargo, or able to handle general cargo on payment of a fee? | nc | 1 | 1 | na | 0.5 | 0.5 | 1 | 0 | 0 | 0.5 | 0.6 |
| 18 | Do the licence conditions for foreign-invested providers who establish locally differ from those for local providers? | | | | | | | | | | | |
| | International shipping | nc | 0 | 1 | na | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | Cabotage | nc | 0 | 1 | na | 1 | 1 | 1 | na | 0 | 0 | 0.6 |
| | Internal waterways | nc | 0 | 1 | na | 0 | 1 | 1 | na | 0 | 0 | 0.4 |
| | Port superstructure | nc | 0 | 0 | na | 0 | 1 | 0 | 1 | 0 | 0 | 0.3 |
| | Cargo handling services | nc | 0 | 0 | na | 0 | 1 | 0 | 0 | 0 | 0 | 0.1 |
| | Storage and warehousing | nc | 0 | 0 | na | 0 | 1 | 0 | 1 | 0 | 0 | 0.3 |
| | Freight forwarding | nc | 0 | 0 | na | 0 | 1 | 0 | 0 | 0 | 0 | 0.1 |
| | Pilotage, towing and tying | nc | 1 | 1 | na | 0 | 1 | 0 | 1 | 0 | 0 | 0.5 |
| | Maintenance and repair of vessels | nc | 0 | 0 | na | 0 | 1 | 1 | 0 | 0 | 0 | 0.3 |
| 19 | Do the licence conditions for foreign cross-border providers differ from those for local providers? | | | | | | | | | | | |
| | International shipping | nc | 0 | 1 | na | 0 | 1 | 0 | 0 | 0 | 1 | 0.4 |
| | Cabotage | nc | 0 | 1 | na | 1 | 1 | 1 | na | 1 | 1 | 0.9 |
| | Internal waterways | nc | 0 | 1 | na | 0 | 1 | 1 | na | 1 | 1 | 0.7 |
| 20 | Does the provision of shipping services by domestic or foreign providers require the appointment of a domestic shipping agent? | | | | | | | | | | | |
| | Domestic providers | | | | | | | | | | | |
| | International shipping | nc | 0 | 0 | na | 1 | 1 | 0 | 0 | 1 | 0 | 0.4 |
| | Cabotage | nc | 0 | 0 | na | 1 | 1 | 0 | na | 1 | 0 | 0.4 |
| | Internal waterways | nc | 0 | 0 | na | 1 | 1 | 0 | na | 1 | 0 | 0.4 |
| | Foreign providers | | | | | | | | | | | |
| | International shipping | nc | 0 | 1 | na | 1 | 0 | 1 | 0 | 1 | 0 | 0.5 |
| | Cabotage | nc | 0 | 1 | na | 1 | 0 | 0 | na | 1 | 0 | 0.4 |
| | Internal waterways | nc | 0 | 1 | na | 1 | 0 | 0 | na | 1 | 0 | 0.4 |
| 21 | Restrictions on the transportation of non-commercial (eg government, defence) cargoes. | nc | 0 | 0 | na | 0 | 1 | 0.5 | 0 | 1 | 0.5 | 0.4 |
| 22 | Does the government subsidise domestic shipping companies? | nc | 0 | 1 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 |
| 23 | Has the government covered operational losses of shipping companies in the past ten years? | nc | 0 | 0 | na | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |

Source: Survey responses.

Sometimes an intermediate score is assigned for intermediate stages of restrictiveness. In the case of maritime services, partial scores have been assigned as follows. For private and foreign equity restrictions, the partial scoring system is the same as in air transport. For the permitted short-term stay of foreign personnel, a score of 0.75 denotes a stay of 30 days or less, a score of 0.5 denotes a stay of 60 days or less, and a score of 0.25 denotes a stay of 90 days or less. For the permitted long-term stay of intra-corporate transferees, a score of 0.8 denotes a stay of 1 year or less, a score of 0.6 denotes a stay of 2 years or less, and a score of 0.4 denotes a stay of 3 years or less, and a score of 0.2 denotes a stay of 4 years or less. When scoring the ownership and operation of ports, public ownership has been scored as 1 and private ownership as 0, while a service port has been scored as 1, a tool port as 0.5 and a landlord port as 0. The scores shown are the average scores across the top five ports. For restrictions on whether private ports can handle general cargo, an intermediate score of 0.5 denotes that payment of a fee is required. For restrictions on the carriage of non-commercial cargoes, an intermediate score of 0.5 denotes that limited restrictions apply.

Summary restrictiveness scores for broad categories of restrictions have also been obtained using the same methods as for air transport. The results are shown in Table 4. The summary scores have been compiled for each maritime service separately, because of the potentially wide variation in the degree of restrictiveness across different services.

**Table 4: Restrictions on Trade in Maritime Services - Prevalence (%)**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Movement of intra-corporate transferees (mode 4) | nc | 72 | 33 | na | 62 | 68 | 58 | 45 | 68 | 55 | 58 |
| **INTERNATIONAL SHIPPING (TOTAL)** | **nc** | **14.3** | **28.6** | **na** | **26.9** | **20** | **24.9** | **2.86** | **31.5** | **40** | **24** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 0 | 0 | na | 0 | 14 | 0 | 0 | 14 | 29 | 7 |
| B. Cross-border trade (mode 1) [question 5] | nc | 38 | 0 | na | 25 | 0 | 13 | 0 | 13 | 88 | 22 |
| D. Ownership [questions 10-11] | nc | 0 | 26 | na | 35 | 0 | 30 | 0 | 26 | 37 | 19 |
| E. Regulation [questions 14, 15, 18-23] | nc | 13 | 56 | na | 38 | 38 | 41 | 6 | 50 | 22 | 33 |
| **CABOTAGE (TOTAL)** | **nc** | **13** | **26.2** | **na** | **36.5** | **52.2** | **30.4** | **na** | **27.8** | **54.3** | **34** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 0 | 14 | na | 0 | 86 | 29 | na | 14 | 29 | 24 |
| B. Cross-border trade (mode 1) [question 5] | nc | 38 | 13 | na | 38 | 13 | 13 | na | 13 | 100 | 32 |
| D. Ownership [questions 10-11] | nc | 0 | 26 | na | 35 | 50 | 50 | na | 35 | 37 | 33 |
| E. Regulation [questions 18-20] | nc | 0 | 75 | na | 100 | 75 | 50 | na | 75 | 25 | 57 |
| **INTERNAL WATERWAYS (TOTAL)** | **nc** | **0** | **53** | **na** | **23** | **73** | **40** | **na** | **36** | **30** | **36** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 0 | 43 | na | 0 | 86 | 29 | na | 14 | 29 | 29 |
| B. Cross-border trade (mode 1) | nc | na | na | na | na | na | na | na | na | na | na |
| D. Ownership [questions 10-11] | nc | 0 | 50 | na | 35 | 50 | 50 | na | 35 | 38 | 37 |
| E. Regulation [question 18] | nc | 0 | 75 | na | 50 | 75 | 50 | na | 75 | 25 | 50 |
| **PORT SUPERSTRUCTURE (TOTAL)** | **nc** | **42** | **17** | **na** | **12** | **75** | **35** | **67** | **17** | **29** | **37** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 29 | 14 | na | 0 | 86 | 43 | 43 | 14 | 29 | 32 |
| B. Cross-border trade (mode 1) | nc | na | na | na | na | na | na | na | na | na | na |
| D. Ownership [questions 10-11] | nc | 75 | 26 | na | 35 | 50 | 30 | 100 | 26 | 38 | 47 |
| E. Regulation [question 18] | nc | 0 | 0 | na | 0 | 100 | 0 | 100 | 0 | 0 | 25 |
| **CARGO HANDLING (TOTAL)** | **nc** | **0** | **17** | **na** | **12** | **17** | **27** | **0** | **17** | **29** | **15** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 0 | 14 | na | 0 | 14 | 29 | 0 | 14 | 29 | 13 |
| B. Cross-border trade (mode 1) | nc | na | na | na | na | na | na | na | na | na | na |
| D. Ownership [questions 10-11] | nc | 0 | 26 | na | 35 | 0 | 30 | 0 | 26 | 38 | 19 |
| E. Regulation [question 18] | nc | 0 | 0 | na | 0 | 100 | 0 | 0 | 0 | 0 | 13 |
| **STORAGE AND WAREHOUSING (TOTAL)** | **nc** | **0** | **17** | **na** | **12** | **17** | **10** | **67** | **17** | **29** | **21** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 0 | 14 | na | 0 | 14 | 0 | 43 | 14 | 29 | 14 |
| B. Cross-border trade (mode 1) | nc | na | na | na | na | na | na | na | na | na | na |
| D. Ownership [questions 10-11] | nc | 0 | 26 | na | 35 | 0 | 30 | 100 | 26 | 38 | 32 |
| E. Regulation [question 18] | nc | 0 | 0 | na | 0 | 100 | 0 | 100 | 0 | 0 | 25 |
| **FREIGHT FORWARDING (TOTAL)** | **nc** | **0** | **17** | **na** | **12** | **17** | **27** | **0** | **17** | **29** | **15** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 0 | 14 | na | 0 | 14 | 29 | 0 | 14 | 29 | 13 |
| B. Cross-border trade (mode 1) | nc | na | na | na | na | na | na | na | na | na | na |
| D. Ownership [questions 10-11] | nc | 0 | 26 | na | 35 | 0 | 30 | 0 | 26 | 38 | 19 |
| E. Regulation [question 18] | nc | 0 | 0 | na | 0 | 100 | 0 | 0 | 0 | 0 | 13 |
| **PILOTAGE, TOWING AND TYING (TOTAL)** | **nc** | **92** | **50** | **na** | **12** | **92** | **27** | **67** | **17** | **67** | **53** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 86 | 43 | na | 0 | 86 | 29 | 43 | 14 | 57 | 45 |
| B. Cross-border trade (mode 1) | nc | na | na | na | na | na | na | na | na | na | na |
| D. Ownership [questions 10-11] | nc | 100 | 50 | na | 35 | 100 | 30 | 100 | 26 | 100 | 68 |
| E. Regulation [question 18] | nc | 100 | 100 | na | 0 | 100 | 0 | 100 | 0 | 0 | 50 |
| **MAINTENANCE AND REPAIR (TOTAL)** | **nc** | **0** | **17** | **na** | **12** | **17** | **18** | **0** | **17** | **29** | **14** |
| A. Commercial presence (mode 3) [questions 1-4] | nc | 0 | 14 | na | 0 | 14 | 0 | 0 | 14 | 29 | 9 |
| B. Cross-border trade (mode 1) | nc | na | na | na | na | na | na | na | na | na | na |
| D. Ownership [questions 10-11] | nc | 0 | 26 | na | 35 | 0 | 30 | 0 | 26 | 38 | 19 |
| E. Regulation [question 18] | nc | 0 | 0 | na | 0 | 100 | 100 | 0 | 0 | 0 | 25 |
| **PORT OPERATION (TOTAL)** | **nc** | **48** | **49** | **na** | **6** | **50** | **58** | **17** | **36** | **52** | **40** |
| B. Affecting cross-border trade (mode 1) in shipping [Q. 7] | nc | 39 | 33 | na | 0 | 44 | 50 | 0 | 44 | 44 | 32 |
| D. Ownership [average of questions 12a and 12b] | nc | 75 | 90 | na | 50 | 30 | 50 | 100 | 33 | 100 | 66 |
| E. Regulation [question 16] | nc | 75 | 100 | na | 13 | 88 | 100 | 50 | 0 | 63 | 61 |
| **TOTAL** | **nc** | **22** | **31** | **na** | **19** | **42** | **32** | **18** | **27** | **41** | 29 |

Source: Survey responses.

Turning to the explicit targets of the ASEAN Economic Community Blueprint, the tables confirm the relatively liberal approach that most countries of the region have taken to cargo sharing arrangements, a restriction on mode 1 trade. However, only three ASEAN countries — Cambodia, Indonesia and Thailand — have stated that they grant exemptions from cabotage restrictions, although Indonesia appears to be in the process of phasing the exemptions out. In addition, Vietnam does not allow cross-border provision of maritime services. Vietnam does not have a deep sea port, so most goods are transported to Singapore and Hong Kong before going to the end points. Foreign firms usually provide cross-border services via a Vietnamese (wholly domestic) agency, who does everything on behalf of foreign suppliers in Vietnam and earns a commission from the foreign partners.

Restrictions on the consumption of maritime transport services abroad are virtually non-existent, other than through restrictions on the outward movement of consumers themselves. Hence they have not been canvassed in this study.

Turning next to the various types of restrictions on commercial presence (mode 3), ownership restrictions are slightly more prevalent than other kinds of regulatory restrictions on entry. According to the survey responses, no ASEAN economy meets the Blueprint target of allowing at least 51 per cent foreign ownership by 2010 in all maritime services. However, some countries meet the target for at least some services, including Cambodia, Singapore, Vietnam and (in principle) Myanmar. In most countries, port operations are still government owned. But some countries have moved to a landlord port model for at least some ports, including Cambodia, Malaysia, the Philippines and Thailand. Regulatory restrictions on entry (other than equity limits) are most prevalent in port superstructure services and pilotage, towing and tying.

Looking beyond trade barriers (strictly defined) to look at domestic regulatory regimes that could also be anti-competitive, half of the ASEAN countries retain discriminatory licensing conditions on foreign suppliers (or prohibit foreign entry) for at least some services — these are Cambodia, Indonesia, Myanmar, the Philippines and Singapore. A majority of ASEAN countries require at least some types of shippers to be represented by a domestic shipping agent. A minority retain restrictions on the transportation of non-commercial cargoes. Fewer governments subsidize shipping companies than they do domestic airlines. However, most governments retain relatively heavy regulation of port services.

# 4. Telecommunications

## 4.1. Key features of the regulatory regime for telecommunications

One of the key rationales for regulatory intervention in fixed line telecommunications has been that, depending on the size of the market, at least some components of the network have had the characteristics of a so-called 'natural monopoly'. This means that a single provider can serve the market at lower cost that two or more providers. But regulatory oversight is then required to ensure that a single provider does not abuse its monopoly power.

A second key rationale has been a concern for equity — to ensure that all individuals (or groups) have access to telecommunications services at reasonable cost (commensurate with their incomes, and irrespective of the cost of providing them with the service). This is the so-called universal service obligation of telecommunications carriers. In markets where penetration was low, this type of intervention also had an efficiency rationale. The value to subscribers of connecting to the network increases with the size of the network. Such 'network externalities' were also seen to justify some degree of subsidization of telecommunications services so as to increase the size of the network.

In the past, these twin objectives were often met by having all telecommunications services provided by a government department, often in conjunction with postal services.

As reflected in the WTO Reference Paper on telecommunications, the reforms of the 1990s recognized that not all elements of the network had natural monopoly characteristics, and that efficiency gains could be had by introducing competition into those components of the network that were not natural monopolies. However, competitors would still need access to the monopoly elements in order to provide a full retail service. So a regulatory access regime was required to ensure that the incumbent provider did not use its control over the 'bottleneck' or 'essential' facility to thwart competition in downstream markets. The access regime was to provide competitors with access to essential facilities at access charges that were cost-based and non-discriminatory. In many networks, the key natural monopoly element was the so-called 'last mile' — the twisted copper wire connecting each subscriber to the network, although in small markets other components of the network could also be natural monopolies. The appropriate regulation of access charges is a complex issue, although sometimes made more complex than necessary when access charges (as a single policy instrument) are used to pursue multiple objectives (eg Dee and Findlay 2008).

A related requirement for promoting contestability was to ensure the general interconnectivity of the facilities of various competitors, whether or not they constituted essential facilities. This was required so the subscribers of one provider could make calls to subscribers of all other providers, irrespective of the ownership of the various network components involved. Various regulatory principles were also developed to ensure that interconnection charges were not used by the incumbent to preserve network dominance (eg Economides, Lopomo and Woroch 1996, ITU 2000).

A further component of these reforms was ensuring number portability, so that retail subscribers could take their original phone number with them if they switched providers. This was necessary to reduce the cost of 'shopping around', and thus to increase the competitive pressures on providers.

A key supporting component of these pro-competitive reforms was to revise the ways in which universal service obligations were met. To that point, they had often been met by cross-subsidies built into the retail prices of telecommunications services. Typically, local call prices were kept too low (relative to costs) and no monthly subscriber access charge was imposed that would help to cover the fixed costs of the network. These pricing decisions, typically designed to help the poor, were at least partially funded by having prices of long distance and international calls that were too high (relative to costs). With the introduction of competition, these cross-subsidies provided competitors with a chance to cherry-pick the lucrative, long-distance parts of the market, and left incumbents with fewer options to cover their fixed costs. Their response was often to inflate the wholesale access prices charged to competitors for access to the essential facility. Of course, this worked to defeat the introduction of competition. A key reform component of the 1990s was therefore to 're-balance' retail prices to remove the cross-subsidies and to ensure that fixed costs were covered, and to find other ways to fund universal service obligations

— typically either directly from the government budget, or through an industry levy imposed on all service providers.

Since then, a number of technological advances have in some ways radically transformed the industry. The first key development has been the phenomenal growth of mobile telephony. This technology has few natural monopoly elements, so it has allowed extensive entry by new providers. The cost of mobile handsets has come down to such an extent that they are now within the reach of the very poorest. The availability of pre-paid phone cards means that it is now a low-risk business to provide such services to the very poorest. Data from the International Telecommunications Union (www.itu.int/ITU-D/icteye/Default.aspx) shows that the market penetration of mobile telephony (measured by the number of subscribers per 100 of the population) far exceeds that of fixed line telephony in virtually all markets. And in some countries, the penetration of fixed line telephony has actually fallen recently, as individuals have relinquished fixed lines in favour of mobile-only services.

To the extent that mobile services provide a close substitute to fixed line services, competition from this source can discipline the behaviour of fixed line service providers and reduce the need for regulatory intervention or oversight. The two services are close substitutes for individuals and perhaps even households. But businesses of any size typically also need fixed line connections to meet the sheer volume of their voice and data needs. Most governments have therefore retained the kind of regulatory structures described in the WTO Reference Paper.

A second key development has been the growth of internet, particularly broadband, services. These services, which combine developments in the size and nature of the ‘pipe’ with developments in switching and signal transmission technology, have made it technologically meaningless to distinguish voice from data traffic. This is the essence of ‘convergence’. So now there is an imperative for regulatory structures to acknowledge this convergence. The key way in which this is happening is in the move from ‘individual’ to ‘general’ or ‘class’ licensing, not just for carrier licences, but also for licences to access the spectrum required for mobile and fixed wireless technologies. Typically, individual licences were not only attached to a particular technology, they were also attached to a particular service.

General licenses are less tied to particular services, and will often allow both voice and data transmission, although most governments are not yet ready to include broadcasting services in the bundle.

There is also a growing choice of technologies for delivering broadband services. Somewhat against initial expectations, technological developments have greatly expanded the capacity of the twisted copper wire, so that within OECD countries (which have extensive conventional networks), the overwhelming majority of broadband services are delivered by DSL technology, a technology that still uses the 'last mile' (OECD 2008). Fibre optic cables offer the prospect of even higher speeds and capacity, but virtually the entire fibre optic network is likely have natural monopoly characteristics, at least for initial levels of usage. Finally, fixed wireless technologies can offer broadband services at a lower capital cost than wired technologies, though at slower speed and not necessarily at lower operating cost (ITU 2001). They are also subject to the same problem of spectrum congestion as mobile services, a problem that is becoming endemic in cities such as Jakarta.

This proliferation of delivery technologies has also provided an imperative for regulatory structures to be 'technology-neutral'. This is also facilitated by the move from 'individual' to 'general' or 'class' licensing, since general licenses are typically no longer tied to a particular technology.

But there are limits on the extent to which regulatory structures can be completely technology-neutral. This is because a key rationale for regulatory intervention remains dealing with 'natural monopoly' components of the network, and the nature and extent of the natural monopoly problem depends on the particular technology in question. Furthermore, as new technologies emerge, regulation must strike a balance between promoting static and dynamic efficiency. Static efficiency requires ensuring maximum use of existing facilities that have natural monopoly characteristics. Dynamic efficiency requires ensuring that providers have sufficient incentives to make risky investments in new capacity and new technologies, by receiving sufficient reward for taking such risks.

Services trade reform is one way of promoting the contestability of markets. The potential benefits have been shown to be significant. Mattoo, Rathindran and Subramanian (2001) estimated that countries with fully open telecommunications and financial sectors grow up to 1.5 percentage points faster than other countries. The analysis of Warren (2000) suggests that in the ASEAN 5, the regulatory restrictions then affecting domestic new entrants would have raised the prices of their services by an average of over 10 per cent, while the additional discrimination (including foreign equity limits) against foreign-invested suppliers would have raised the cost of their services by more than 80 per cent.

However, in telecommunications services, there is no ‘one-size-fits-all’ best approach to regulation, given the rapid development and proliferation of technologies. The most recent ITU survey of trends in reform (ITU 2008) stresses the importance of ensuring interconnectivity across all technologies and all providers, to maximize the use that will be made of any particular facility. The report is subtitled ‘Six Degrees of Sharing’, and notes (p. 1):

“In a way, many regulatory practices can be viewed as sharing. What is new and innovative is their application to meet the needs of developing countries. What is the same is that they use time-tested, pro-competitive tools, such as the regulation of essential or bottleneck facilities, transparency, and the promotion of collocation and interconnection”.

Nevertheless, there is considerable current uncertainty about which technologies may become dominant in the future, and as noted, the scope of such regulation depends on the technology. Countries may not necessarily be sure to ‘pick the best winner’, but they can at least ensure that their regulatory regimes are internally consistent. For example, countries making a serious commitment to fibre optic technologies could need to put more regulatory effort into access regimes that countries relying more on mobile and fixed wireless technologies. But designing a regulatory framework may also depend on whether the national backbone provider competes with other service providers for end users (in which case they have an incentive to block competitors), or whether the backbone provider does not service end users (and therefore has an incentive to sell as much capacity as possible to those that do). There are many more such considerations to be taken into account.

In what follows, the scorecard for telecommunications monitors some of the regulatory settings that have been instrumental in promoting contestability in many circumstances. However, it needs to be recognized that the best, or most internally consistent, regulatory regime may still vary significantly from country to country.

### 4.2. Scorecard for telecommunications services

The questionnaire covering actual barriers to trade in telecommunications services thus asks about a range of regulatory policies. Many of these have been recognized as being trade-promoting by the WTO Reference Paper on Telecommunications.

Under commercial presence, the questionnaire asks whether there are restrictions on the entry of new service providers wanting to establish commercially, whether they are domestically-owned, foreign-invested or both. The question covers a variety of telecommunications services separately — domestic fixed line services (local and long-distance), international services (wire/cable and satellite), mobile services using various technologies, data services (both fixed and wireless), leased lines, internet access services and VoIP (Voice over the Internet Protocol) telephony.

The questionnaire also asks these questions separately for facilities-based services, ie services offered by suppliers who own most or all of the transmission capacity used, and resale-based services, ie services offered by suppliers that lease transmission capacity from facilities-based operators and use those facilities (typically with their own switches and routers) to provide services to third parties. Some countries have encouraged resale-based services, particularly in the early stages of reform, in order to put competitive pressure on the pricing structures of incumbents. Other countries have wanted to promote facilities-based competition, and so have restricted or prohibited resale-based services.

This section also asks about restrictions on the ability of non-telecommunications businesses to lease lines or build private networks to meet their own internal communications needs. It also asks about whether such businesses are restricted from connecting their own internal networks to the outside world through the public switched telecommunications network.

Finally, this section asks about whether providers of some services (either facilities-based or resale-based) are restricted from offering services in other segments of the market. It also asks about restrictions on the legal form of establishment, in particular whether these differ for foreign-invested companies.

It is generally difficult to trade telecommunications services cross-border, without a commercial presence. This is because phone calls are initiated at home, using home-based infrastructure. About the only way that cross-border (mode 1) trade can occur is via call-back. This is where a caller phones an overseas operator, who then calls the subscriber back and connects them to their intended party. In this way, the substantive call is initiated overseas (although the home subscriber can still be charged by the operator for the service). Call-back used to be an effective way to circumvent high international call charges, and perhaps for this reason, it was (and still is) banned in many countries. However, it is of far less relevance today. Firstly, technological advances in conventional telephony have allowed significantly more domestic competition, which has dramatically reduced international call charges. Secondly, much more effective competition is now being provided by VoIP telephony, which is a service requiring a domestic commercial presence. Nevertheless, for completeness, the questionnaire asks about restrictions on call-back services.

Under ownership restrictions, the questionnaire asks whether there are maximum limits on the equity participation of either private domestic or foreign shareholders in locally established telecommunications companies. This question covers the full variety of telecommunications services separately, and also covers facilities-based and resale-based services.

In the final policy section, the questionnaire asks about various aspects of the domestic regulatory regime. It asks whether carrier licences and spectrum licences are ‘individual’ or ‘general’. It asks whether any licences grant exclusive (ie monopoly) rights, and whether separate licences are required for each state/province. It asks about the presence of discriminatory licensing requirements for foreign providers. It also asks about restrictions on the transfer of carrier licences, and whether spectrum trading occurs. Finally, this section has questions covering the regulation of network interconnection (such as whether these are regulated, and which pricing principles apply), the regulation of end-user tariffs (such as whether tariffs have been rebalanced), and the regulation of universal service (such as which instruments are used).

Finally, unlike the questionnaires for other services, this questionnaire asks about market structures in telecommunications. As noted above, there is no one-size-fits-all regulatory structure, although there are some common elements that have proved to be pro-competitive in many circumstances. What matters as much as the individual regulatory elements is their overall coherence. There have been instances in the past where countries have been able to tick most of the boxes in terms of fulfilling the requirements of the WTO Reference Paper on Telecommunications, but incumbents have been able to retain a dominant position because of internal inconsistency, or because key pieces of the regulatory puzzle have been missing. The questionnaire requests a variety of information about market structure, but in practice only three pieces of information were able to be collected on a consistent basis — the market share of the dominant fixed line service provider, the market share of the dominant mobile service provider, and the number of providers of VoIP telephony.

### 4.3. Scorecard results for telecommunications services

As with previous services, the qualitative information about trade restrictions and regulatory regimes has been coded in a zero-one fashion, where for each question, a score of 1 has been assigned if the restriction applies, and 0 if it does not. These detailed results are shown in Table 5.

# Table 5: Restrictions on Trade in Telecommunications Services (Index 0-1)

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. Policy Section** | | | | | | | | | | | |
| ***A. Commercial presence - restrictions on entry*** | | | | | | | | | | | |
| ***a. Own-facilities basis*** | | | | | | | | | | | |
| 1 Are there restrictions on new *facilities-based* suppliers of these services? | | | | | | | | | | | |
| By any firm? | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Domestic long distance (fixed) voice telephone services | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| International (fixed) voice telephone services - wire/cable | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Mobile voice telephone - analog, digital | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Data communications - fixed | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - mobile | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Leased lines | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Internet access services - wire/cable | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - fixed wireless | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Other - VOIP | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Firms with foreign participation | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Domestic long distance (fixed) voice telephone services | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| International (fixed) voice telephone services - wire/cable | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Mobile voice telephone - analog, digital | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Data communications - fixed | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - mobile | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Leased lines | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Internet access services - wire/cable | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - fixed wireless | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Other - VOIP | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| 3 Are there restrictions on *facilities-based* companies entering one market segment if they are operating in others? | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 4 Are foreign *facilities-based* suppliers required to establish under legal forms not required for domestic operators? | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0.7 |
| ***b. Resale basis*** | | | | | | | | | | | |
| 5 Are there restrictions on new *resale-based* suppliers of these services? | | | | | | | | | | | |
| By any firm? | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Domestic long distance (fixed) voice telephone services | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| International (fixed) voice telephone services - wire/cable | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Mobile voice telephone - analog, digital | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Data communications - fixed | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - mobile | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Leased lines | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Internet access services - wire/cable | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - fixed wireless | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Other - VOIP | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |

## Table 5 (Continued): Restrictions on Trade in Telecommunications Services (Index 0-1)

| | | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Firms with foreign participation | | | | | | | | | | | |
| | Local (fixed) voice telephone services | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | Domestic long distance (fixed) voice telephone services | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | International (fixed) voice telephone services - wire/cable | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | Mobile voice telephone - analog, digital | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | Data communications - fixed | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | - mobile | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | Leased lines | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| | Internet access services - wire/cable | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| | - fixed wireless | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| | Other - VOIP | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| 7 | Are there restrictions on *resale-based* companies entering one market segment if they are operating in others? | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 8 | Are foreign *resale-based* suppliers required to establish under legal forms not required for domestic operators? | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0.7 |
| | ***c. Leased lines and private networks*** | | | | | | | | | | | |
| 9 | Are companies permitted to operate private networks of *leased lines* between their various premises? | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| | Is prior authorization required? | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0.4 |
| 10 | Are companies permitted to operate private networks of *"own facilities"* between their various premises? | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 |
| | Is prior authorization required? | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0.6 |
| 11 | What types of affiliated firms may be connected to the same private network? | | | | | | | | | | | |
| | Parent/holding companies, subsidiaries and branches | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| | As above plus affiliates with minority ownership | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0.2 |
| | Close user groups regardless of ownership linkages | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0.3 |
| 12 | Is interconnection of these private networks to the public switched network permitted? | | | | | | | | | | | |
| | At one end? | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0.2 |
| | Both ends? | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0.3 |
| | ***B. Restrictions on cross-border trade (mode 1)*** | | | | | | | | | | | |
| | ***a. Own-facilities basis*** | | | | | | | | | | | |
| 13 | Are there restrictions on the cross-border supply of facilities-based services, e.g., callback? | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0.8 |
| 14 | Are there routing restrictions (e.g., having to use the incumbent's international gateways)? | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0.5 |
| | ***a. Resale basis*** | | | | | | | | | | | |
| 16 | Are there restrictions on the cross-border supply of resale-based services, e.g., callback? | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0.8 |
| 17 | Are there routing restrictions (e.g., having to use the incumbent's international gateways)? | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0.6 |
| | ***C. Ownership*** | | | | | | | | | | | |
| 20 | Is private (ie non-government) ownership of *facilities-based* telecom service suppliers allowed? | | | | | | | | | | | |
| | Existing operators | | | | | | | | | | | |
| | Local (fixed) voice telephone services | 0 | 0 | 0 | 0.75 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| | Domestic long distance (fixed) voice telephone services | 0 | 0 | 0 | 0.75 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| | International (fixed) voice telephone services - wire/cable | 0 | 0 | 0 | 1 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| | - satellite | 0 | 0 | 0 | 1 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| | Mobile voice telephone - analog, digital | 0 | 0 | 0 | 0.75 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| | - satellite | 0 | 0 | 0 | 1 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |

## Table 5 (Continued): Restrictions on Trade in Telecommunications Services (Index 0-1)

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Data communications - fixed | 0 | 0 | 0 | 0.75 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| - mobile | 0 | 0 | 0 | 0.75 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| Leased lines | 0 | 0 | 0 | 0.75 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| Internet access services - wire/cable | 0 | 0 | 0 | 0.75 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| - fixed wireless | 0 | 0 | 0 | 0.75 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| Other - VOIP | 0 | 0 | 0 | 1 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| New entrants | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Domestic long distance (fixed) voice telephone services | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| International (fixed) voice telephone services - wire/cable | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Mobile voice telephone - analog, digital | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Data communications - fixed | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - mobile | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Leased lines | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Internet access services - wire/cable | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - fixed wireless | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Other - VOIP | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| 21 Is foreign ownership of *facilities-based* telecom service suppliers allowed? | | | | | | | | | | | |
| Existing operators | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0.51 | 0 | 0.51 | 0.75 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| Domestic long distance (fixed) voice telephone services | 0.51 | 0 | 0.51 | 0.75 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| International (fixed) voice telephone services - wire/cable | 0.51 | 0 | 0.51 | 1 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| - satellite | 0.51 | 0 | 0.51 | 1 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| Mobile voice telephone - analog, digital | 0.51 | 0 | 0.35 | 0.75 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| - satellite | 0.51 | 0 | 0.35 | 1 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| Data communications - fixed | 0.51 | 0 | 0.05 | 0.75 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| - mobile | 0.51 | 0 | 0.05 | 0.75 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| Leased lines | 0.51 | 0 | 0.51 | 0.75 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| Internet access services - wire/cable | 0.51 | 0 | 0.35 | 0.75 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| - fixed wireless | 0.51 | 0 | 0.35 | 0.75 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.4 |
| Other - VOIP | 0.51 | 0 | 0.51 | 1 | 0.51 | 0.4 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| New entrants | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| Domestic long distance (fixed) voice telephone services | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| International (fixed) voice telephone services - wire/cable | 0.51 | 1 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.6 |
| - satellite | 0.51 | 1 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.6 |
| Mobile voice telephone - analog, digital | 0.51 | 1 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.6 |
| - satellite | 0.51 | 1 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.6 |
| Data communications - fixed | 0.51 | 0 | 0.05 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| - mobile | 0.51 | 0 | 0.05 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| Leased lines | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| Internet access services - wire/cable | 0.51 | 0 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| - fixed wireless | 0.51 | 0 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| Other - VOIP | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0.51 | 0.49 | 0.5 |
| 22 Is private (ie non-government) ownership of *resale-based* telecom service suppliers allowed? | | | | | | | | | | | |
| Existing operators | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Domestic long distance (fixed) voice telephone services | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |

## Table 5 (Continued): Restrictions on Trade in Telecommunications Services (Index 0-1)

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| International (fixed) voice telephone services - wire/cable | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - satellite | 0 | 0 | 0 | 1 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| Mobile voice telephone - analog, digital | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - satellite | 0 | 0 | 0 | 1 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| Data communications - fixed | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - mobile | 0 | 0 | 0 | 1 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| Leased lines | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Internet access services - wire/cable | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - fixed wireless | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Other - VOIP | 0 | 0 | 0 | 1 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 |
| New entrants | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Domestic long distance (fixed) voice telephone services | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| International (fixed) voice telephone services - wire/cable | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Mobile voice telephone - analog, digital | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - satellite | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Data communications - fixed | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| - mobile | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| Leased lines | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Internet access services - wire/cable | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| - fixed wireless | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| Other - VOIP | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| 23 Is foreign ownership of *resale-based* telecom service suppliers allowed? | | | | | | | | | | | |
| Existing operators | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| Domestic long distance (fixed) voice telephone services | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| International (fixed) voice telephone services - wire/cable | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| - satellite | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| Mobile voice telephone - analog, digital | 0.51 | 0 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.4 |
| - satellite | 0.51 | 0 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.4 |
| Data communications - fixed | 0.51 | 0 | 0.05 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.4 |
| - mobile | 0.51 | 0 | 0.05 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.4 |
| Leased lines | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| Internet access services - wire/cable | 0.51 | 0 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.4 |
| - fixed wireless | 0.51 | 0 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.4 |
| Other - VOIP | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| New entrants | | | | | | | | | | | |
| Local (fixed) voice telephone services | 0.51 | 1 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.6 |
| Domestic long distance (fixed) voice telephone services | 0.51 | 1 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.6 |
| International (fixed) voice telephone services - wire/cable | 0.51 | 1 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.6 |
| - satellite | 0.51 | 1 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.6 |
| Mobile voice telephone - analog, digital | 0.51 | 1 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| - satellite | 0.51 | 1 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| Data communications - fixed | 0.51 | 1 | 0.05 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| - mobile | 0.51 | 1 | 0.05 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| Leased lines | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |
| Internet access services - wire/cable | 0.51 | 0 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.4 |
| - fixed wireless | 0.51 | 0 | 0.35 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.4 |
| Other - VOIP | 0.51 | 0 | 0.51 | 1 | 0.51 | 1 | 0.6 | 0 | 0 | 0.49 | 0.5 |

## Table 5 (Continued): Restrictions on Trade in Telecommunications Services (Index 0-1)

| | | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***D. Regulation*** | | | | | | | | | | | |
| | ***b. Licensing*** | | | | | | | | | | | |
| 25 | a. Are individual or general/class *operating licenses* required for the provision of various services? Facilities-based | 1 | 0.083 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0.6 |
| | b. Are individual or general/class *operating licenses* required for the provision of various services? Resale-based | 1 | 0.727 | 1 | 1 | 0 | 1 | 1 | 0.5 | 0 | 0 | 0.6 |
| 26 | When s*pectrum licenses* are required for the provision of services, are they individual or general/class use licenses. | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0.6 |
| 27 | Do any licences grant exclusive rights? | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| 28 | Are separate licenses required to establish branches in each state/province? | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| 30 | Are foreign-owned suppliers subject to different licensing conditions from domestic suppliers? | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0.1 |
| 31 | Once the licenses have been allocated, are there restrictions on firms' ability to sell or otherwise transfer these licenses? | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0.7 |
| | Does spectrum trading occur? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0.8 |
| | ***c. Regulation of network interconnection*** | | | | | | | | | | | |
| 32 | How are interconnection agreements among service providers determined? | | | | | | | | | | | |
| | Between fixed line service providers | 0.5 | 0.5 | 0.5 | 1 | 0.5 | 1 | 0 | 0.5 | 0.5 | 0.5 | 0.6 |
| | Between mobile and fixed line carriers | 0.5 | 0.5 | 0.5 | 1 | 0.5 | 1 | 0 | 0.5 | 0.5 | 0.5 | 0.6 |
| | Between mobile carriers | 0.5 | 0.5 | 0.5 | 1 | 0.5 | 1 | 0 | 0.5 | 0.5 | 0.5 | 0.6 |
| | Between internet service providers | 0.5 | 0.5 | 0.5 | 1 | 0.5 | 1 | 0 | 0.5 | 0 | 0.5 | 0.5 |
| 34 | Which of the following interconnection pricing rules apply? | | | | | | | | | | | |
| | Between fixed line service providers | | | | | | | | | | | |
| | Reciprocal pricing | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0.6 |
| | Unbundling | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0.5 |
| | Imputation | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0.7 |
| | Between mobile and fixed line carriers | | | | | | | | | | | |
| | Reciprocal pricing | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0.6 |
| | Unbundling | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0.5 |
| | Imputation | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0.7 |
| | Between mobile carriers | | | | | | | | | | | |
| | Reciprocal pricing | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0.6 |
| | Unbundling | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0.5 |
| | Imputation | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0.7 |
| 35 | Other aspects of interconnection | | | | | | | | | | | |
| | Are reference agreements publicly available? | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0.6 |
| | Are mobile phone carriers allowed to charge for incoming mobile calls? | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| | ***d. Regulation of end-user tariffs*** | | | | | | | | | | | |
| 36 | How are end used tariffs determined in your country? | | | | | | | | | | | |
| | For fixed line calls | 0.5 | 0 | 0 | 1 | 0.5 | 1 | 1 | 1 | 1 | 0 | 0.6 |
| | For mobile calls | 0.5 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0.6 |
| 37 | Tariff rebalancing | | | | | | | | | | | |
| | Are fixed line providers allowed to charge a subscriber access charge (eg per month) as well as a charge per call? | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0.2 |
| | Have tariffs been rebalanced, or are there plans to rebalance them? | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0.5 |
| | ***e. Universal Service*** | | | | | | | | | | | |
| 39 | What are the policy instruments used to pursue the universal service objective? | 0.5 | 0 | 0 | 0 | 0.5 | 0 | 0.5 | 0 | 0.5 | 0 | 0.2 |

**Table 5 (Continued): Restrictions on Trade in Telecommunications Services (Index 0-1)**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **II. Market Structure** | | | | | | | | | | | |
| 41 Domestic fixed line - market share of incumbent | 1 | 0.25 | 0.25 | 0 | 1 | 1 | 0.25 | 0 | 0 | 0.5 | 0.4 |
| Mobile voice telephone services (analog/digital) - market share of largest provider | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0.2 |
| 42 How many providers are offering telecommunications services through VOIP? | 0.75 | 0 | 0 | 1 | 0 | 0.75 | 0 | 0 | 1 | 0 | 0.4 |

Source: Survey responses.

Sometimes an intermediate score is assigned for intermediate stages of restrictiveness. In the case of telecommunications services, partial scores have been assigned as follows. For private and foreign equity restrictions, the partial scoring system is the same as in air transport. The overall scores for licence types are an average across all services, where for each service an individual licence (or service not permitted) has been assigned a score of 1, and a general licence has been assigned a score of 0. For the regulatory regimes governing interconnection, end-user tariffs and universal service, light-handed regulation has been assigned a low score and heavy-handed regulation a high score. However, a normative interpretation should not be placed on these scores because, as noted previously, it is coherence rather than light-handedness per se that matters. For interconnection agreements, private negotiation has been assigned a score of 0, detailed regulation a score of 1, and intermediate types of regulation a score of 0.5. Similarly, for the setting of end-user tariffs, market forces have been assigned a score of 0, CPI-X price caps on groups of services have been assigned a score of 0.25, CPI-X price caps on individual services have been assigned a score of 0.5, and other options have been assigned a score of 1. For the delivery of universal service obligations, monopoly provision has been assigned a score of 1, rollout obligations a score of 0.5, and direct subsidies or vouchers a score of 0.

The overall coherence of regulatory regimes can ultimately be judged according to whether they have engendered a competitive market structure. When scoring the market share of the dominant fixed line and mobile service provider, a market share of more than 90 per cent has been scored as 1, a share of more than 80 per cent has been scored as 0.75, a share of more than 70 per cent has been scored as 0.5, a share of more than 60 per cent has been scored as 0.25, and all smaller market shares have been scored as 0. When scoring the number of VoIP service providers, no providers has been scored as 1, a single provider has been scored as 0.75, less than 10 providers has been scored as 0.5, and 10 or more has been scored as 0.

Summary restrictiveness scores for broad categories of restrictions have also been obtained using the same methods as for air transport. The results are shown in Table 6.

**Table 6: Restrictions on Trade in Telecommunications Services - Prevalence (%)**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **FACILITIES-BASED SERVICES (TOTAL)** | **20** | **24** | **18** | **94** | **20** | **80** | **22** | **0** | **21** | **18** | **32** |
| A. Commercial presence (mode 3) [questions 1-4] | 4 | 35 | 4 | 96 | 4 | 96 | 0 | 0 | 4 | 4 | 25 |
| B. Cross-border trade (mode 1) [questions 13-14] | 0 | 100 | 100 | 100 | 100 | 100 | 50 | 0 | 50 | 50 | 65 |
| C. Ownership [questions 20-21] | 26 | 17 | 19 | 92 | 26 | 70 | 30 | 0 | 26 | 25 | 33 |
| D. Regulation - licensing [questions 25a and 26] | 100 | 4 | 100 | 100 | 0 | 100 | 100 | 0 | 100 | 0 | 60 |
| **RESALE-BASED SERVICES (TOTAL)** | **18** | **45** | **17** | **99** | **20** | **96** | **23** | **1** | **3** | **18** | **34** |
| A. Commercial presence (mode 3) [questions 5-8] | 4 | 62 | 4 | 96 | 4 | 96 | 0 | 0 | 4 | 4 | 27 |
| B. Cross-border trade (mode 1) [questions 16-17] | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 50 | 50 | 70 |
| C. Ownership [questions 22-23] | 26 | 33 | 19 | 100 | 26 | 95 | 30 | 0 | 0 | 25 | 35 |
| D. Regulation - licensing [question 25b] | 100 | 73 | 100 | 100 | 0 | 100 | 100 | 50 | 0 | 0 | 62 |
| **LEASED LINES AND PRIVATE NETWORKS (TOTAL)** | **22** | **22** | **33** | **11** | **33** | **11** | **0** | **33** | **44** | **22** | **23** |
| A. Commercial presence (mode 3) [questions 9-12] | 22 | 22 | 33 | 11 | 33 | 11 | 0 | 33 | 44 | 22 | 23 |
| **GENERAL (TOTAL)** | **34** | **42** | **23** | **59** | **52** | **92** | **58** | **44** | **52** | **43** | **50** |
| D. Regulation - licensing [questions 27-31] | 50 | 50 | 75 | 50 | 50 | 75 | 25 | 25 | 50 | 50 | 50 |
| D. Regulation - other [questions 32-39] | 23 | 45 | 15 | 65 | 55 | 95 | 73 | 55 | 55 | 45 | 53 |
| Market structure [questions 41-42] | 92 | 8 | 8 | 33 | 33 | 92 | 8 | 0 | 33 | 17 | 33 |
| **TOTAL** | **21** | **35** | **19** | **87** | **25** | **85** | **26** | **8** | **19** | **21** | **35** |

Source: Survey responses.

Turning first to the ‘acid test’ of market structure, most ASEAN countries score relatively well. One exception is Brunei, but with a population of just over 300,000 in 2000, this is a very small market — probably too small to support more than one player. Another exception is Myanmar, where the service is in practice dominated by the government, though foreign investment in partnership with the government is allowed in principle. Although Lao PDR has more than one player, even in fixed line services, it has extensive restrictions on further new entry, as does Myanmar and to a lesser extent, Cambodia. A final exception is Malaysia, which still has a virtual monopoly in fixed line telecommunications.

Turning next to the other explicit targets of the ASEAN Economic Community Blueprint, a majority of countries score poorly on restrictions on cross-border (mode 1) trade in telecommunications services. However, as noted earlier, the relevant restriction to this mode of trade is by now a technical restriction that has very little real relevance. Similarly, restrictions on the consumption of telecommunications services abroad (mode 2) are non-existent (other than through restrictions on the outward movement of consumers themselves), so have not been canvassed in the questionnaire.

Table 5 shows the situation regarding foreign equity limits on investment in existing or new telecommunications service providers. Cambodia, Lao PDR and Myanmar have total bans on foreign investment in new provision of at least some telecommunications services. The Philippines limits foreign equity to 40 per cent in all services. Four more countries limit foreign investment in at least some services to 49 per cent, which is less than the 51 per cent target for 2010 prescribed in the Blueprint. These are Brunei, Indonesia, Malaysia and Thailand. Thus only two ASEAN countries — Singapore and Vietnam — currently meet the Blueprint's foreign equity targets in telecommunications, at least on an MFN basis. This is hard to understand, given the extent of existing competition in most countries, even in fixed line services.

As far as regulation is concerned, most countries are relatively even-handed in their regulation of facilities-based and resale-based services, and most have a relatively liberal treatment of leased lines and private networks. However, only a minority of ASEAN members have moved comprehensively to general rather than individual licensing of telecommunications providers — these are Cambodia, Malaysia, Singapore and Vietnam. Malaysia is the one ASEAN country that still applies discriminatory licensing requirements to foreign-invested suppliers.

In terms of general regulation, Indonesia, Brunei, and to a lesser extent Cambodia and Vietnam apply relatively light-handed regulation to telecommunications suppliers. However, as noted previously, no normative interpretation should necessarily be placed on this result. Instead, the very high market share of the incumbent fixed line service supplier in Malaysia is perhaps most indicative of a problem with general regulation.

# 5. Implementation of the ASEAN Single Window

## 5.1. Key features of the regulatory regime for customs clearance

Business surveys routinely identify high money and time costs of customs clearance procedures as key contributors to an inefficient logistics chain. Recent business surveys within ASEAN were summarized in Findlay (2009). This summary noted that border procedures continue to be pervasive and critically affect both goods and services business across ASEAN. The procedures themselves are numerous and still need to be reduced or rationalized or streamlined. “The ASEAN Single Window program illustrates this difficulty, since national Single Windows still need to be realized in all member countries. The national Single Window program is a priority.” (Findlay 2009, p. 103)

Blueprints for simplifying and harmonizing customs procedures have been available for decades. The Kyoto Convention entered into force in 1974, and was revised in 1999 as the blueprint for modern and efficient customs procedures in the 21st century. The revised Kyoto Convention entered into force in 2006, and elaborates several key governing principles, including:

- transparency and predictability of customs actions;
- standardization and simplification of the goods declaration and supporting documents;
- simplified procedures for authorized persons;
- maximum use of information technology;
- minimum necessary customs control to ensure compliance with regulations;
- use of risk management and audit based controls;
- coordinated interventions with other border agencies; and
- partnership with the trade.

Significant progress has been made in ASEAN over the years, including the harmonization of tariff nomenclature, customs valuation, establishment of post-audit clearance system in all member countries, implementation of a green lane for ASEAN trade, and common customs formalities for transit goods (CIE 2006).

In 2005, ASEAN agreed to establish the ASEAN Single Window to further expedite customs procedures within ASEAN. This was to involve setting up a single clearance channel for goods for the ASEAN 6 by 2008, and newer members by 2012.

The ASEAN Single Window presupposes the existence of national Single Windows that can be interconnected. National Single Windows are to allow:

- a single point of entry for submission of data and information;
- re-use of data and information to avoid repeated keying-in of data;
- single synchronous processing of data and information; and
- quick and easy release and clearance of cargo.

The National Single Windows are to coordinate the processing of information and data across six major areas:

- customs;
- permit issuing agencies/other government agencies;
- banking and insurance agencies;
- transport community;
- trading community; and
- ASEAN/International link.

### 5.2. Scorecard for customs clearance

The questionnaire covering customs clearance asks about implementation of National Single Windows, and cooperation to achieve an ASEAN Single Window. Information about the current state of play is available on the ASEAN Secretariat's website (see www.aseansec.org/Fact%20Sheet/AEC/2009-AEC-018.pdf). The current questionnaire adds value by not only asking about progress towards the above-stated goals of the National Single Window, but also whether this has facilitated achieving the broader aims of the revised Kyoto Convention. Key to these aims is maximising the use of information technology and minimizing the scope for bureaucratic intervention, not just to speed up customs clearance procedures, but also to reduce the opportunities for informal payments.

The first section of the questionnaire asks about implementation of National Single Windows, on either a pilot basis or at all points of entry, and what this has contributed to achieving the broader goals of the revised Kyoto Convention. It asks about the extent to which information can be submitted electronically, and about the extent of multiple handling and/or multiple keying that might still take place 'behind' the single window. It then asks a series of questions about how clearance and release procedures might thereby have been streamlined and automated. Specifically it asks whether there is a time limit for the approval of declarations, whether performance is measured against target, whether there is a fast-lane procedure for regular importers with a good track record, and critically, whether duty can be paid via electronic funds transfer, and whether there is automatic release of goods once duty is paid. These key steps were identified in the survey by Findlay (2009). Finally, it asks a series of questions about the risk assessment methods employed. Specifically, it asks whether there are clearly identified risk assessment criteria for cargo inspection, whether pre-arrival information is used in risk assessment, whether selection for assessment is done electronically, based on risk criteria, whether X-ray equipment is used in examination, and whether manual inspection is subject to time limits. These steps were also identified in the survey by Findlay (2009)

The next section of the questionnaire asks about transparency and due process. There is a series of questions about the online availability of information about trade regulations, and the availability of feedback and appeals mechanisms for importers, freight forwarders and transport operators. Critically, this section also asks whether performance is measured ex post. Specifically, it asks whether customs clearance times are measured according to the World Customs Organization's (WCO) time-release methodology, and whether clearance times (however measured) are made public. As with telecommunications regulation, trade regulation involves a series of interconnected processes, and overall performance can remain poor if one component is missing. Therefore, it is critical not just to monitor the implementation of individual components, but also to measure overall performance, and to make this publicly available for scrutiny. According to the survey results, only half of ASEAN members measure clearance times according to WCO methodology, and even fewer make such data public.

In the final section, the questionnaire asks about a country's participation in regional cooperation efforts towards an ASEAN Single Window. This includes not only participating in pilot schemes, but also working towards streamlining and harmonizing customs marking requirements, and working towards mutual recognition of conformance assessments.

## 5.3. Scorecard results for customs clearance

As with the previous services, the qualitative information about customs clearance procedures has been coded in a zero-one fashion. Contrary to previous services, a higher score denotes a 'better' rather than a 'worse' outcome. Thus a score of 1 has been assigned if a streamlining or improvement measure has been implemented, and 0 if it has not, so the index is an implementation index rather than a restriction index. The detailed results are shown in Table 7.

**Table 7: Implementation of ASEAN Single Window**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. National Policy** | (0=no implementation, 1=full implementation) | | | | | | | | | | |
| ***A. National Single Window*** | | | | | | | | | | | |
| 1 Is there a single point of entry for the submission of all data and information required to move goods across borders? | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 1 | 1 | 0.5 | 0.5 | 0.6 |
| 2 How must the data be submitted? | 0.5 | 0.5 | 0.5 | 0 | 0.5 | 0 | 1 | 1 | 0.5 | 0.5 | 0.5 |
| 3 How is the data processed? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.2 | 0.6 | 0.9 |
| 4 Clearance and release | | | | | | | | | | | |
| Is there a time limit for approval of declarations? | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0.8 |
| Is actual performance measured against target? | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0.7 |
| Fast-lane procedure for importers with good track record? | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0.7 |
| Can duty payment be made by electronic funds transfer? | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0.5 |
| Automatic release of goods once payment received? | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0.6 |
| 5 Risk assessment | | | | | | | | | | | |
| Clearly identified risk assessment criteria for cargo inspection? | 0.5 | 0.5 | 1 | 0.5 | 1 | 0.5 | 1 | 0 | 1 | 0.5 | 0.7 |
| Pre-arrival information used in risk assessment? | 0.5 | 0.5 | 0 | 0 | 0.5 | 0 | 1 | 1 | 1 | 1 | 0.6 |
| Selection for examination electronic, based on risk criteria? | 0.5 | 0 | 1 | 0 | 0.5 | 0 | 1 | 0 | 1 | 0 | 0.4 |
| Is X-ray equipment used in examination? | 0.5 | 1 | 1 | 0 | 0.5 | 1 | 1 | 1 | 1 | 1 | 0.8 |
| Is manual inspection subject to time limits? | 0.5 | 0 | 0.5 | 0.5 | 1 | 1 | 0 | 0 | 1 | 1 | 0.6 |
| ***B. Transparency and due process*** | | | | | | | | | | | |
| 6 Trade regulation | | | | | | | | | | | |
| Is trade regulation available online? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| Is there provision for online feedback from importers etc? | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0.7 |
| Is there a telephone hotline for queries about procedures? | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0.7 |
| participants? | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0.8 |
| Is there a system of appeals in Customs matters? | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0.7 |
| 7 Performance | | | | | | | | | | | |
| Clearance times measured according to WCO methodology? | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0.5 |
| Is the data made public? | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0.3 |
| **II. Regional Cooperation** | | | | | | | | | | | |
| 8 Is your country participating in the ASEAN Single Window? | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 1 | 1 | 0.5 | 0.5 | 0.6 |
| 9 Is your country working towards streamlining and harmonising Customs marking requirements within ASEAN? | | | | | | | | | | | |
| Developing preferred approach at national level? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| Participating in regional discussions? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 10 Is your country working towards mutual recognition of conformance assessments within ASEAN? | | | | | | | | | | | |
| Developing preferred approach at national level? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| Participating in regional discussions? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.0 |

Source: Survey responses.

Sometimes an intermediate score is assigned for intermediate stages of implementation. In the case of customs clearance, a partial score of 0.5 has been assigned if a country has participated in a particular national or regional improvement activity on a pilot basis, rather than at all points of entry. A score of 0.5 has been assigned if data submission is only partially electronic. Finally, a score of 0.5 has been assigned if a particular risk assessment measure is undertaken only sometimes, rather than always.

Summary restrictiveness scores for broad categories of customs clearance improvement measures have been obtained using the same methods as for air transport. The results are shown in Table 8.

**Table 8: Implementation of ASEAN Single Window - Prevalence (%)**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. National Policy** | **73** | **45** | **78** | **43** | **83** | **48** | **90** | **60** | **81** | **46** | **64** |
| *A. National Single Window [questions 1-5]* | 73 | 38 | 65 | 42 | 81 | 50 | 92 | 62 | 78 | 47 | 63 |
| *B. Transparency and due process [questions 6-7]* | 71 | 57 | 100 | 43 | 86 | 43 | 86 | 57 | 86 | 43 | 67 |
| **II. Regional Cooperation** [questions 8-10] | **90** | **90** | **90** | **90** | **90** | **80** | **100** | **100** | **90** | **90** | **91** |
| **TOTAL** | **76** | **54** | **80** | **52** | **84** | **54** | **92** | **68** | **83** | **54** | **70** |

Source: Survey responses.

The two tables indicate, not surprisingly, that there is little apparent variation in countries' participation in formal ASEAN efforts to improve customs procedures. All countries are participating in regional cooperation efforts to simplify and harmonize customs documentation and to introduce mutual recognition of conformance assessments. Most countries are participating in efforts to introduce National Single Windows and integrate these into an ASEAN Single Window (the exception is Myanmar).

Differences arise in the extent to which this participation is translating into better customs procedures on the ground. There is little variation in the responses to the question about the number of times data is handled or keyed in 'behind' the window, indicating that this question was too simplistic to capture some of the issues involved. More revealing is the fact that only two countries have fully electronic filing of customs documentation — Singapore and the Philippines. Similarly, there is considerable variation in the extent to which countries have set targets and used information technology to automate decision-making in their clearance and release procedures, although this variation partly reflects levels of development. Brunei, Malaysia and the Philippines do the best on this score. Singapore apparently does less well, though this may simply reflect the reticence of Singapore customs authorities to provide full information. Cambodia and Vietnam have made the least progress on setting targets and automating decision-making.

There is also considerable variation in the extent to which risk assessment is used in customs clearance. The Philippines and Thailand do well. Singapore's responses reflect the unwillingness of the Singapore customs authorities to reveal the existence and nature of any risk assessment criteria.

Most ASEAN countries are relatively transparent about their trade regulation. But very few are fully transparent about ex post performance, as measured by customs clearance times. Apparently only Indonesia measures these according to WCO methodology and makes the results public. Lao PDR and Myanmar are reported as making information public, though they do not use WCO methodology. By contrast, Malaysia, the Philippines, Thailand and Vietnam measure clearance times, but do not make the results public. As noted above, the publication of clearance times would provide the acid test as to whether ASEAN cooperation efforts were achieving their ultimate aims.

## 6. Summary and Conclusions

The key purpose of this paper has been to map the existing policy space in three key services sectors — air transport, maritime services (both shipping and port services), and telecommunications services — as well as to provide evidence on whether the implementation of the ASEAN Single Window is helping to achieve the broader objectives of the revised Kyoto Convention on customs procedures. The air transport sector is one of the priority sectors to be liberalized by 2010, while maritime and telecommunications services and customs clearance are key components of the logistics chain.

**Air transport** is regulated by bilateral and plurilateral air services agreements that have been negotiated largely outside of the normal disciplines of services trade agreements, and are typically far less liberal than such agreements, particularly in their ‘rules of origin’. The ownership provisions of air services agreements can significantly limit the ability of foreign service providers to offer international or domestic passenger and freight services, either cross-border or by commercial presence. The restrictions embodied in air services agreements have been shown to be costly.

According to the survey responses, only one country — Singapore — explicitly meets the Blueprint target of allowing at least 70 per cent foreign ownership in domestically established air services companies by 2010. But if Singapore were actually to achieve 70 per cent foreign ownership of its international airline, it could well be prevented from supplying international air services to other ASEAN countries, even if they had ratified the ASEAN Multilateral Agreements on Air Services. This is because that multilateral agreement allows them to retain withholding clauses in their air services agreements that would require Singapore to have ‘substantial ownership and effective control’ of Singapore Airlines by Singaporean entities in order to provide services.

Therefore, effective liberalization of mode 3 trade in air services not only requires the reform of investment laws, it also requires the reform of withholding clauses in air services agreements so that at minimum, they allow substantial ownership by an ASEAN community of interests. Currently, the secrecy surrounding the provisions of air services agreements makes it very difficult for outside observers to monitor such progress. ASEAN members should be working towards the further reform of their air services agreements, and should be demanding much greater transparency of their provisions.

As in many other services, restrictions on the movement of people remain one of the most prevalent of all types of trade restrictions. Looking beyond trade barriers (strictly defined) to look at domestic regulatory regimes, most ASEAN countries allocate flight and gate slots in ways that could potentially be anti-competitive. This is becoming an increasingly important barrier to effective competition.

In **maritime services**, most countries of the region have taken a relatively liberal approach to cargo sharing arrangements, a restriction on mode 1 trade. However, only three ASEAN countries — Cambodia, Indonesia and Thailand — have stated that they grant exemptions from cabotage restrictions, and Indonesia appears to be in the process of phasing the exemptions out. Nevertheless, cabotage restrictions have been shown to be costly, particularly for developing countries, and ASEAN members should be looking to expand the scope of exemptions on such restrictions.

According to the survey responses, no ASEAN economy meets the Blueprint target of allowing at least 51 per cent foreign ownership by 2010 in all maritime services. However, some countries meet the target for at least some services, including Cambodia, Singapore, Vietnam and (in principle) Myanmar. Some countries have moved to a relatively liberal landlord port model for at least some ports, including Cambodia, Malaysia, the Philippines and Thailand. Regulatory restrictions on entry (other than equity limits) are most prevalent in port superstructure services and pilotage, towing and tying.

In **telecommunications**, the 'acid test' of whether regulatory structures have promoted contestability is whether they have diluted the market shares of incumbent providers. Here most ASEAN countries score relatively well, except for Brunei (which has a very small market), Myanmar (where the service is in practice dominated by the government) and Malaysia (which still has a virtual monopoly in fixed line telecommunications).

Only two ASEAN countries — Singapore and Vietnam — currently meet the Blueprint's foreign equity targets in all telecommunications services, at least on an MFN basis. The remaining restrictions on foreign equity limits are hard to understand, given the extent of existing competition in most countries, even in fixed line services, and should be phased out.

As far as regulation is concerned, most countries are relatively even-handed in their regulation of facilities-based and resale-based services. However, only a minority of ASEAN members have moved comprehensively to general rather than individual licensing of telecommunications, a move that can promote convergence and ensure the technological neutrality of regulation. Some countries apply relatively light-handed regulation to telecommunications suppliers, although no normative interpretation should necessarily be placed on this result, since regulatory coherence is more important that light- or heavy-handedness per se. The persistence of very high market shares of incumbent service suppliers is perhaps most indicative of remaining problems with general regulation.

There is little apparent variation in countries' participation in formal ASEAN efforts to improve **customs clearance** procedures. Differences arise in the extent to which this participation is translating into better customs procedures on the ground. Only two countries report having fully electronic filing of customs documentation. Similarly, there is considerable variation in the extent to which countries have set targets and used information technology to automate decision-making in their clearance and release procedures, although this variation partly reflects levels of development. There is also considerable variation in the extent to which risk assessment is used in customs clearance.

Most ASEAN countries are relatively transparent about their trade regulation. But very few are fully transparent about ex post performance, as measured by customs clearance times. The publication of clearance times would provide the acid test as to whether ASEAN cooperation efforts were achieving their ultimate aims, and should be a priority for ASEAN members.

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## ERIA TRADE IN SERVICES SECTORAL QUESTIONNAIRE – AIR TRANSPORT SERVICES

COVERAGE (CPC Codes)

| | |
|---|---|
| 10.C. Air Transport Services | |
| a. Passenger transportation | 731 |
| b. Freight transportation | 732 |
| c. Rental of aircraft with crew | 734 |
| d. Maintenance and repair of aircraft | 8868** |
| e. Supporting services for air transport | 746 |
| 10.H. Services Auxiliary to all Modes of Transport | |
| a. Cargo-handling services | 741 |
| b. Storage and warehouse services | 742 |
| c. Freight transport agency services | 748 |
| d. Other | 749 |

Notes: ** The service specified constitutes only a part of the total range of activities covered by the CPC item number.

INTRODUCTION

The questionnaire covers the conditions of *competition* in the sector, notably policy restrictions on entry; restrictions on *ownership*, private and foreign; and *regulation*, including air services agreements and regulations governing the allocation of landing slots.

Note (1): Please give information for the current year only. Please record actual practice.

Note (2): Whenever a question is not applicable, (eg because the particular activity or institution is not allowed), please indicate using 'NA', rather than leaving the cell blank. Please also explain why the question is not applicable.

Note (3): Where reporting monetary values, please note currency.

Note (4): If insufficient space is provided, please attach additional information on separate sheets.

SUGGESTED INFORMATION SOURCES

Government department in charge of regulating domestic and/or international airline services and/or airports.
Independent national or regional regulatory body overseeing these activities (if different from the above institution)
A domestically-owned airline company (if necessary)
A foreign-invested airline company (if necessary)
A domestically-owned or foreign-invested airport management company (if necessary)

A. Commercial presence (mode 3) - restrictions on entry

1. Are there policy restrictions to new entry (refer only to operators wanting to establish commercially)?

| Service | Entry by any Firm | If yes, total number of firms allowed | Entry by firms with foreign participation[1] | If yes, number of firms with foreign participation allowed |
|---|---|---|---|---|
| International air passenger transport (scheduled services)[2] | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International air passenger transport (non-scheduled charter services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International air freight transport[2,3] | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic air transport (scheduled services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic air transport (non-scheduled charter services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic air freight transport[3] | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Provision of fuel | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Luggage and freight loading and unloading | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Aircraft repair and maintenance | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Selling and marketing of air transport services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Computer reservation system | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

2. If entry is restricted, what are the reasons provided by the government?

Use the definitions below to fill in the table:
1—To give protected operators time to prepare for competition.
2—To increase government revenue from privatization or license fees.
3—Exclusive rights believed necessary to attract (strategic) investment.
4—It is believed that market can sustain only a limited number of operators.
5—Strategic activity reserved to the state.

| Service | Reasons | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | Other (describe in brief) |
| International air passenger transport (scheduled services) | | | | | | |
| International air passenger transport (non-scheduled charter services) | | | | | | |
| International air freight transport | | | | | | |
| Domestic air transport (scheduled services) | | | | | | |
| Domestic air transport (non-scheduled charter services) | | | | | | |
| Domestic air freight transport | | | | | | |
| Provision of fuel | | | | | | |

[1] This category also includes branches and subsidiaries of foreign suppliers.

[2] Include designation among restrictions.

[3] All-cargo carriers, express delivery companies.

| | | | | | | |
|---|---|---|---|---|---|---|
| Luggage and freight loading and unloading | | | | | | |
| Aircraft repair and maintenance | | | | | | |
| Selling and marketing of air transport services | | | | | | |
| Computer reservation system | | | | | | |

B. Restrictions on cross-border trade (mode 1)

| 3. Are there restrictions on cross-border supply by foreign service providers in non-scheduled (charter) air transport market? | | | |
|---|---|---|---|
| | Entry by foreign firm | If yes, total number of foreign providers allowed | If yes, reason for restriction[4] |
| International air passenger transport (non-scheduled charter services) | ☐ No ☐ Yes | | |
| Domestic air transport (non-scheduled charter services) | ☐ No ☐ Yes | | |

| 4. Bilateral Air Service Agreements (ASAs). If there is not enough space, please attach the answer separately. | | |
|---|---|---|
| Type of bilateral ASAs | Number of signed, but not operational, bilateral ASAs | Number of operational bilateral ASAs |
| Predetermined (TP)[5] | | |
| Bermuda (B)[6] | | |
| "Point to Point" Open Skies (POS)[7] | | |
| "Multiple Point" Open Skies (MOS)[8] | | |
| Other (please state) | | |

[4] Use reason codes in question 2.

[5] each country designates one single company to operate on the bilateral route; limited number of points/routes operated by designated airlines as listed in the bilateral's annex; capacity and frequency to be agreed ex ante; few 5th freedom granted

[6] each country designates one or several airlines on each route; limited number of points/routes operated by designated airlines as listed in the bilateral's annex; there is no ex ante capacity control on each route, capacity offered is often negotiated via commercial agreements between airlines; several 5th freedoms may be granted, but total capacity must be proportional to the needs of the main bilateral route

[7] multiple designation of airlines; free access to designated routes, between specific points, either departure or arrival points may be left open and unrestricted; no frequency or capacity control; extensive 5th freedom rights are granted

[8] multiple designation of airlines; airlines can fly on any route between two states; no frequency or capacity control; unrestricted 5th freedom

5. Is the country a member of any plurilateral open skies agreement group?

☐ No ☐ Yes If yes, please list other members of the group:

6. Please fill in the following information referring to clauses in operational Air Service Agreements:

a) Ownership/withholding clauses in ASAs

| | Names of countries in the bilateral ASAs[9] | Names of plurilateral open skies agreement groups[10] |
|---|---|---|
| Substantial ownership and effective control | | |
| Community of interest | | |
| Principal place of business | | |

b) Tariff clauses in ASAs

| | Names of countries in the bilateral ASAs | Names of plurilateral open skies agreement groups |
|---|---|---|
| Double approval[11] | | |
| Country of origin[12] | | |
| No approval needed | | |
| Double disapproval[13] | | |
| Other mechanism of setting tariffs (please describe in brief) | | |

c) Capacity clauses imposed on foreign airlines

| | Names of countries in the bilateral ASAs | Names of plurilateral open skies agreement groups |
|---|---|---|
| No capacity constraints | | |
| Capacity constraints | | |

d) Number of foreign airlines designated

| | Names of countries in the bilateral ASAs | Names of plurilateral open skies agreement groups |
|---|---|---|
| Single | | |
| Double | | |
| Multiple | | |

e) Routes specification for the foreign airlines

| | Names of countries in the bilateral ASAs | Names of plurilateral open skies agreement groups |
|---|---|---|
| Routes not specified | | |
| Routes specified | | |

[9] Include a single country in more than one category if necessary, ie if ASAs covering different city pairs have different provisions.
[10] Include air transport liberalization within EU in this category.
[11] Both states must approve a tariff.
[12] Only the state in which the transportation originates needs to approve the tariff.
[13] Both states concerned must disapprove a tariff to prevent it from coming into effect.

f) Frequency of flights for the foreign airlines

| | Names of countries in the bilateral ASAs | Names of plurilateral open skies agreement groups |
|---|---|---|
| Frequency not limited | | |
| Frequency limited | | |

g) Freedoms of the air granted to foreign airlines for passenger traffic

| | Names of countries in the bilateral ASAs | |
|---|---|---|
| | Unrestricted freedom | Restricted freedom (eg only to capital cities – please state) |
| Third freedoms[14] | | |
| Fourth freedoms[15] | | |
| Fifth freedom[16] | | |
| Sixth freedom[17] | | |
| Seventh freedom[18] | | |
| Cabotage[19] | | |

h) Freedoms of the air granted to foreign airlines for freight traffic (where different from above)

| | Names of countries in the bilateral ASAs | |
|---|---|---|
| | Unrestricted freedom | Restricted freedom (please state) |
| Third freedoms | | |
| Fourth freedoms | | |
| Fifth freedom | | |
| Sixth freedom | | |
| Seventh freedom | | |
| Cabotage | | |

[14] The right of an airline of one country to carry traffic (passenger, cargo, mail) from its country to another country.

[15] The right of an airline of one country to carry traffic (passenger, cargo, mail) from another country to its own country.

[16] The right of an airline of one country to carry traffic between two other countries providing the flight originates and terminates in its own country.

[17] The right of an airline of one country to carry traffic between two other countries via its own country.

[18] The right of an airline of one country to carry traffic between two other countries without the flight originating or terminating in its own country.

[19] The right of an airline of one country to carry domestic traffic between two points within the territory of another country.

C. Restrictions on the movement of intra-corporate transferees of foreign-invested companies (mode 4)

| 7. Are there residency or nationality requirements or quotas for any of the following categories of personnel employed by locally established foreign airline transport services companies? | |
|---|---|
| | Minimum number/percentage of nationals/residents (please specify) |
| Members of the board of directors | |
| Executives | |
| Managers | |
| Skilled workers | |
| Unskilled workers | |
| Other staff (specify): | |

| 8. Identify the categories of intra-corporate transferees whose entry and stay is subject to labour market tests? | |
|---|---|
| Members of the board of directors | |
| Executives | |
| Managers | |
| Skilled workers | |
| Unskilled workers | |
| Other staff (specify): | |

D. Ownership

9. Is private ownership in the provision of services through commercial establishment allowed?

| Services | Existing operators | Maximum private equity permitted (%) | New entrants | Maximum private equity permitted (%) |
|---|---|---|---|---|
| International air passenger transport (scheduled services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International air passenger transport (non-scheduled charter services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International air freight transport | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic air transport (scheduled services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic air transport (non-scheduled charter services) | | | | |
| Domestic air freight transport | | | | |
| Provision of fuel | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Luggage and freight loading and unloading | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Aircraft repair and maintenance | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Selling and marketing of air transport services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Computer reservation system | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

| 10. Is foreign ownership in the provision of services through commercial establishment allowed? | | | | |
|---|---|---|---|---|
| Services | Existing operators | Maximum foreign equity permitted (%) | New entrants | Maximum foreign equity permitted (%) |
| International air passenger transport (scheduled services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International air passenger transport (non-scheduled charter services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International air freight transport | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic air transport (scheduled services) | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic air transport (non-scheduled charter services) | | | | |
| Domestic air freight transport | | | | |
| Provision of fuel | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Luggage and freight loading and unloading | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Aircraft repair and maintenance | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Selling and marketing of air transport services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Computer reservation system | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

11. Does the government have a special government voting right in the airlines?
☐ No ☐ Yes

12. Please mark in the table below, the appropriate ownership structure for up to the 5 most important international airports in terms of traffic:

| Assets ownership/Service provision | Airports | | | | |
|---|---|---|---|---|---|
| | | | | | |
| Publicly owned/publicly operated | | | | | |
| Publicly owned/ privately operated (e.g., by concession) | | | | | |
| If so - is operator foreign? | | | | | |
| Privately owned/privately operated | | | | | |
| If so - is operator foreign? | | | | | |
| - is owner foreign? | | | | | |

E. Regulation

| 13. Institutional status of sector regulator | | |
|---|---|---|
| | For carriers | For airports |
| Name of regulator | | |
| When was the regulator established? | | |
| Is the regulator institutionally independent from the Ministry? | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Is the regulator institutionally independent from the operating entity (airline, airport)? | ☐ No ☐ Yes | ☐ No ☐ Yes |

14. How are flight slots allocated in airports?

- ☐ By grandfathering rights
- ☐ By slot auction
- ☐ By a combination of grandfathering rights and slot auction
- ☐ By authorities discretion
- ☐ By flag carrier discretion
- ☐ By airport discretion
- ☐ By IATA guidelines[20]
- ☐ Other:______________________________

15. How are gate slots allocated in airports?

- ☐ By grandfathering rights
- ☐ By slot auction
- ☐ By a combination of grandfathering rights and slot auction
- ☐ By authorities discretion
- ☐ By flag carrier discretion
- ☐ By airport discretion
- ☐ By IATA guidelines
- ☐ Other:______________________________

16. Carrier alliances

a) Are alliances and other carrier agreements allowed? ☐ No ☐ Yes
b) Are carrier agreements exempted from competition law? ☐ No ☐ Yes
c) Is codesharing allowed? ☐ No ☐ Yes

17. Price regulation

a) Does the government regulate airfares?
On domestic routes ☐ No ☐ Yes
On international routes ☐ No ☐ Yes

b) If yes to a), is fare discounting allowed?
On domestic routes ☐ No ☐ Yes
On international routes ☐ No ☐ Yes

[20] The IATA regime which has no legal status or enforcement mechanisms, is essentially based on the criteria of past performance, together with some simple rules intended to create openings for new entrants and to ensure that slots are not sterilized and left unused by companies (the ‘use’ or ‘lose’ principle).

18. What licence conditions must new domestic entrants fulfill?

| Service | Payment of license fee (indicate amount in local currency) | Other (describe in brief) |
|---|---|---|
| International air passenger transport (scheduled services) | | |
| International air passenger transport (non-scheduled charter services) | | |
| International air freight transport | | |
| Domestic air transport (scheduled services) | | |
| Domestic air transport (non-scheduled charter services) | | |
| Domestic air freight transport | | |
| Provision of fuel | | |
| Luggage and freight loading and unloading | | |
| Aircraft repair and maintenance | | |
| Selling and marketing of air transport services | | |
| Computer reservation system | | |

19. Do the licence conditions for foreign-invested providers who establish locally differ from those above (tick whichever applies)?

| | Foreign providers not allowed | Conditions same | Conditions differ | Describe difference |
|---|---|---|---|---|
| International air passenger transport (scheduled services) | ☐ | ☐ | ☐ | |
| International air passenger transport (non-scheduled charter services) | ☐ | ☐ | ☐ | |
| International air freight transport | ☐ | ☐ | ☐ | |
| Domestic air transport (scheduled services) | ☐ | ☐ | ☐ | |
| Domestic air transport (non-scheduled charter services) | | | | |
| Domestic air freight transport | | | | |
| Provision of fuel | ☐ | ☐ | ☐ | |
| Luggage and freight loading and unloading | ☐ | ☐ | ☐ | |
| Aircraft repair and maintenance | ☐ | ☐ | ☐ | |
| Selling and marketing of air transport services | ☐ | ☐ | ☐ | |
| Computer reservation system | ☐ | ☐ | ☐ | |

20. Does the government subsidize domestic airlines?
☐ No ☐ Yes If yes, please indicate the airlines.

21. Has the government covered operational losses of airlines in the past ten years?
☐ No ☐ Yes If yes, please indicate the amount in each of the last ten years.

22. Does the government oblige large national airlines to provide universal service?
☐ No ☐ Yes
How does the government define universal service (or universal access)?

23. Please provide separately the texts of all bilateral and plurilateral air service agreements signed since 2002.

If you have any queries about this questionnaire, please contact:

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ERIA TRADE IN SERVICES SECTORAL QUESTIONNAIRE – MARITIME SERVICES - FINAL

The questionnaire covers both maritime shipping and onshore maritime services (eg cargo handling, other port services).

COVERAGE (CPC Codes)

| | |
|---|---|
| 10.A. Maritime Transport Services | |
| a. Passenger transportation | 7211 |
| b. Freight transportation | 7212 |
| c. Rental of vessels with crew | 7213 |
| d. Maintenance and repair of vessels | 8868** |
| e. Pushing and towing services | 7214 |
| f. Supporting services for maritime transport | 745** |
| 10.B Internal Waterways Transport | |
| a. Passenger transportation | 7221 |
| b. Freight transportation | 7222 |
| c. Rental of vessels with crew | 7223 |
| d. Maintenance and repair of vessels | 8868** |
| e. Pushing and towing services | 7224 |
| f. Supporting services for internal waterway transport | 745** |
| 10.H. Services Auxiliary to all Modes of Transport | |
| a. Cargo-handling services | 741 |
| b. Storage and warehouse services | 742 |
| c. Freight transport agency services | 748 |
| d. Other | 749 |

Notes: ** The service specified constitutes only a part of the total range of activities covered by the CPC item number.

Port services require the construction, ownership and maintenance of port infrastructure and superstructure. In some countries, ownership and service provision (eg cargo handling) are vested in the same public entity. In other countries, there is private participation in the ownership and/or operation of port superstructure and perhaps infrastructure. Where there is private participation in its operation but not ownership, private firms typically rent port assets through concessions and/or licences. In this questionnaire, the construction/ownership of port superstructure/infrastructure (terminals, cranes) is treated as an additional activity, potentially distinct from its operation.

INTRODUCTION

The questionnaire covers the conditions of *competition* in the sector, notably policy restrictions on entry; restrictions on *ownership*, private and foreign; and *regulation*, including regulations governing shipping conferences and conditions required to carry the national flag.

Note (1): Please give information for the current year only. Please record actual practice.

Note (2): Whenever a question is not applicable, (eg because the particular activity or institution is not allowed), please indicate using 'NA', rather than leaving the cell blank. Please also explain why the question is not applicable.

Note (3): Where reporting monetary values, please note currency.

Note (4): If insufficient space is provided, please attach additional information on separate sheets.

SUGGESTED INFORMATION SOURCES

Government department in charge of regulating maritime shipping and/or port services
Independent national or regional regulatory body overseeing maritime shipping and/or port services (if different from the above institution)
A domestically-owned shipping company (if necessary)
A foreign-invested shipping company (if necessary)
A domestically-owned or foreign-invested onshore maritime service company (if necessary)

A. Commercial presence (mode 3) - restrictions on entry

1. Are there policy restrictions to new entry (refer only to commercially-established operators)?

| Service | Entry by any firm | If yes, total number of firms allowed | Entry by firms with foreign participation[1] | If yes, number of firms with foreign participation allowed |
|---|---|---|---|---|
| International shipping | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Cabotage[2] | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internal waterways | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Port superstructure | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Cargo handling services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Storage and warehousing | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Freight forwarding | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Pilotage, towing and tying | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Maintenance and repair of vessels | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

2. If entry is restricted, what are the reasons provided by the government?

Use the definitions below to fill in the table:

1—To give the incumbent(s) time to prepare for competition.
2—To increase government revenue from privatization or license fees
3—Exclusive rights believed necessary to attract (strategic) investment. If so, please specify how many and how long exclusive rights are provided.

| | Reasons | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | Other (describe in brief) |
| International shipping | | | | |
| Cabotage | | | | |
| Internal waterways | | | | |
| Port superstructure | | | | |
| Cargo handling | | | | |
| Storage and warehousing | | | | |
| Freight forwarding | | | | |
| Pilotage, towing and tying | | | | |
| Maintenance and repair | | | | |

3. Are foreign maritime companies *prohibited* from establishing in a joint venture with local firms? Are they *required* to establish in a JV? Are there restrictions on JVs (eg equity limits)

| | JV prohibited? | JV required? | Restrictions on JVs |
|---|---|---|---|
| International shipping | ☐ No ☐ Yes | ☐ No ☐ Yes | |
| Cabotage | ☐ No ☐ Yes | ☐ No ☐ Yes | |
| Internal waterways | ☐ No ☐ Yes | ☐ No ☐ Yes | |
| Port superstructure | ☐ No ☐ Yes | ☐ No ☐ Yes | |
| Cargo handling | ☐ No ☐ Yes | ☐ No ☐ Yes | |
| Storage and warehousing | ☐ No ☐ Yes | ☐ No ☐ Yes | |
| Freight forwarding | ☐ No ☐ Yes | ☐ No ☐ Yes | |
| Pilotage, towing and tying | ☐ No ☐ Yes | ☐ No ☐ Yes | |
| Maintenance and repair | ☐ No ☐ Yes | ☐ No ☐ Yes | |

[1] This category also includes branches and subsidiaries of foreign suppliers.

[2] Trade transit of a vessel along the coast (coastal trading), from one port to another within the territorial limits of a single nation.

4. Which of the following legal forms of establishment are allowed for foreign maritime transport companies? (tick all relevant forms)

| | Subsidiaries | Branches | Representative offices | All |
|---|---|---|---|---|
| International shipping | ☐ | ☐ | ☐ | ☐ |
| Cabotage | ☐ | ☐ | ☐ | ☐ |
| Internal waterways | ☐ | ☐ | ☐ | ☐ |
| Port superstructure | ☐ | ☐ | ☐ | ☐ |
| Cargo handling | ☐ | ☐ | ☐ | ☐ |
| Storage and warehousing | ☐ | ☐ | ☐ | ☐ |
| Freight forwarding | ☐ | ☐ | ☐ | ☐ |
| Pilotage, towing and tying | ☐ | ☐ | ☐ | ☐ |
| Maintenance and repair of vessels | ☐ | ☐ | ☐ | ☐ |

B. Restrictions on cross-border trade (mode 1)

5. Describe restrictions on cross-border supply imposed on foreign shipping companies:

| | International Shipping | | Cabotage | |
|---|---|---|---|---|
| Restriction | Liner | Tramp[3] | Liner | Tramp[3] |
| Application of principle of reciprocity | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Restrictions on the number of foreign suppliers (indicate how many foreign suppliers are allowed) | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Are exemptions from cabotage restrictions available? Please specify. | | | | |
| Party to UN Liner Code, but Article 2 not applied[4] | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| UN Liner Code applied, including Article 2 (provide quota applicable to foreign suppliers) | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Bilateral agreements including cargo-sharing clauses (provide total number and list countries affected) | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Cargo reservation if different from the application of UN Liner Code and bilateral agreements (provide quota applicable to foreign suppliers) | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Selective restrictions imposed by government for retaliatory purposes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Other (please specify): ____________________ | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |

[3] As opposed to freight liners, tramp ships trade on the spot market with no fixed schedule or itinerary/ports-of-call(s).
[4] Article 2 gives the governments of trading states the right to specify the amount of conference cargo that can be carried by shipping lines of the state of origin, the state of destination and third-country shipping lines. The most common (though not mandated) ratio is 40/40/20.

| 6. If cross-border entry is restricted, what are the reasons provided by the government? | | |
|---|---|---|
| | International Shipping | Cabotage |
| To give the incumbent(s) time to prepare for competition. | ☐ No ☐ Yes | ☐ No ☐ Yes |
| For national security reasons. | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Other (please specify) | | |

| 7. Please fill in the following table with information referring to any of the top 3 main international ports (in terms of traffic): | | |
|---|---|---|
| Port service | Are the following services mandatory for ships entering the port (main port only)? | Is access to service discriminatory for foreign carriers as opposed to domestic ones? |
| Pilotage | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Towing | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Tug assistance | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Navigation aids | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Berthing | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Waste disposal | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Anchorage | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Casting off | ☐ No ☐ Yes | ☐ No ☐ Yes |
| | | |
| Are there restrictions on domestic ships getting access to ports? | | ☐ No ☐ Yes |
| Are there restrictions on foreign ships getting access to ports? | | ☐ No ☐ Yes |

C. Restrictions on the movement of intra-corporate transferees of foreign-invested companies (mode 4)

| 8. Are there residency or nationality requirements or quotas for any of the following categories of personnel employed by locally established foreign maritime transport services companies? | |
|---|---|
| | Minimum number/percentage of nationals/residents (please specify) |
| Members of the board of directors | |
| Executives | |
| Managers | |
| Skilled workers | |
| Unskilled workers | |
| Other staff (specify): | |

| 9. Identify the permitted length of short-term visit (in days) for foreign personnel (eg shipping agents). Identify the permitted length of long-term stay (in years) of foreign intra-corporate transferees. | |
|---|---|
| Short-term | |
| Long-term | |

D. Ownership

| 10. Is private ownership in the provision of services through commercial establishment allowed? | | | | |
|---|---|---|---|---|
| | Existing operators | Maximum private equity permitted (%) | New entrants | Maximum private equity permitted (%) |
| International shipping | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Cabotage | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internal waterways | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Port superstructure | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Cargo handling | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Storage and warehousing | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Freight forwarding | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Pilotage, towing and tying | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Maintenance and repair of vessels | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

| 11. Is foreign ownership in the provision of services through commercial establishment allowed? | | | | |
|---|---|---|---|---|
| | Existing operators | Maximum foreign equity permitted (%) | New entrants | Maximum foreign equity permitted (%) |
| International shipping | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Cabotage | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internal waterways | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Port superstructure | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Cargo handling | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Storage and warehousing | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Freight forwarding | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Pilotage, towing and tying | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Maintenance and repair of vessels | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

| 12. Please fill in the table below, for the 5 most important international maritime ports with respect to the amount of traffic. | | |
|---|---|---|
| Port | Port Authority | Port type[5] |
| | ☐ Public ☐ Private | ☐ Landlord ☐ Tool ☐ Service ☐ Other |
| | ☐ Public ☐ Private | ☐ Landlord ☐ Tool ☐ Service ☐ Other |
| | ☐ Public ☐ Private | ☐ Landlord ☐ Tool ☐ Service ☐ Other |
| | ☐ Public ☐ Private | ☐ Landlord ☐ Tool ☐ Service ☐ Other |
| | ☐ Public ☐ Private | ☐ Landlord ☐ Tool ☐ Service ☐ Other |

[5] In the case of landlord ports, the port authority typically owns and manages infrastructure, private firms are able to own superstructure, and provide port services as well as rent port assets by concessions or licenses. In the case of tool ports, port authority owns infrastructure and super structure, private firms provide services by renting port assets through concessions and licenses. In the case of service ports, the port authority owns assets and supplies services by directly hiring employees.

E Regulation

| 13. Characteristics of the sector regulator | | |
|---|---|---|
| Institutional status of sector regulator | For carriers | For ports |
| Name of regulator | | |
| When was the regulator established? | | |
| Is the regulator institutionally independent of the Ministry?[6] | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Is the regulator institutionally independent of the operating entity (shipping company, port operator)? | ☐ No ☐ Yes | ☐ No ☐ Yes |

| 14. What are the conditions that a vessel or fleet must fulfill in order to fly the national flag[7] (if a national merchant fleet does not exist or an "open registry" [8] system is in place, please specify). Please tick all that apply. | |
|---|---|
| Commercial presence required? | ☐ No ☐ Yes |
| At least 50% equity participation must be domestic? | ☐ No ☐ Yes |
| At least 50% of crew required to be domestic? | ☐ No ☐ Yes |
| Other (please state): | |
| | |
| National merchant fleet does not exist? | ☐ No ☐ Yes |
| Open registry system in place? | ☐ No ☐ Yes |
| | |
| Do exporters or importers receive concessional treatment of any sort if they use national flagged vessels? | ☐ No ☐ Yes |

| 15. Regulation of carrier agreements | |
|---|---|
| Do agreements between transport carriers (such as conferences[9]) benefit from exemptions to competition law? | ☐ No ☐ Yes |
| If yes, what types of carrier agreements benefit from exemptions? | |
| What types of conference agreements are allowed? | |
| Open? | ☐ No ☐ Yes |
| Closed? | ☐ No ☐ Yes |
| Both open and closed? | ☐ No ☐ Yes |
| Are tariffs established by carrier agreements required to be filed or notified? | ☐ No ☐ Yes |
| Open registry system in place? | ☐ No ☐ Yes |
| Does the government enforce tariffs agreed upon within carrier agreements? | ☐ No ☐ Yes |
| Is fare discounting allowed? | ☐ No ☐ Yes |
| Does the regulatory agency monitor conferences' activities? | ☐ No ☐ Yes |

[6] 'Institutionally independent' means that the regulator is not part of the ministry and is not linked to the operating entity (national carriers/port authorities)

[7] 'Flagged' fleets are where countries exercise effective State control.

[8] 'Open registries' are where countries do not exercise effective 'flag' or State control over fleets.

[9] Shipping 'Conferences' are integrated cartels fixing prices and frequencies, that are open to new entrants on US routes and closed in the rest of the world. They often enjoy anti-trust immunity and benefit from block exemption from competition authorities on the basis that it is thought by some that they constitute a factor of stability and a source of technical progress and services to customers.

| 16. Regulation of port services (please answer for any of the top 3 international ports) | |
|---|---|
| Are terminal handling costs regulated by government? | ☐ No ☐ Yes |
| Are terminal handling costs non-negotiable? | ☐ No ☐ Yes |
| Are terminals restricted in the activities they can undertake (eg only container operations)? | ☐ No ☐ Yes |
| | |
| Are private ports prohibited from handling general cargo?[10] | ☐ No ☐ Yes |
| Are private ports able to handle general cargo on payment of a fee? | ☐ No ☐ Yes |

17. What licence conditions must new domestic entrants fulfill?

| | Payment of license fee (indicate amount in local currency) | Other (describe in brief) |
|---|---|---|
| International shipping | | |
| Cabotage | | |
| Internal waterways | | |
| Port superstructure | | |
| Cargo handling | | |
| Storage and Warehousing | | |
| Freight forwarding | | |
| Pilotage, towing and tying | | |
| Maintenance and repair of vessels | | |

18. Do the licence conditions for foreign-invested providers who establish locally differ from those above (tick whichever applies)? For example, please note if foreign providers must fly the national flag in order to provide cabotage services, or if they have restrictions on type of cargoes.

| | Foreign providers not allowed | Conditions same | Conditions differ | Describe difference |
|---|---|---|---|---|
| International shipping | ☐ | ☐ | ☐ | |
| Cabotage | ☐ | ☐ | ☐ | |
| Internal waterways | ☐ | ☐ | ☐ | |
| Port superstructure | ☐ | ☐ | ☐ | |
| Cargo handling | ☐ | ☐ | ☐ | |
| Storage and Warehousing | ☐ | ☐ | ☐ | |
| Freight forwarding | ☐ | ☐ | ☐ | |
| Pilotage, towing and tying | ☐ | ☐ | ☐ | |
| Maintenance and repair of vessels | ☐ | ☐ | ☐ | |

[10] Private ports are typically built and operated for a special purpose, eg to service a mining operation.

| 19. Do the licence conditions for foreign cross-border providers differ from those above (tick whichever applies)? For example, please note if foreign providers must fly the national flag in order to provide cabotage services, or if they have restrictions on type of cargoes. | | | | |
|---|---|---|---|---|
| | Foreign providers not allowed | Conditions same | Conditions differ | Describe difference |
| International shipping | ☐ | ☐ | ☐ | |
| Cabotage | ☐ | ☐ | ☐ | |
| Internal waterways | ☐ | ☐ | ☐ | |

| 20. Does the provision of shipping services by domestic or foreign providers require the appointment of a domestic shipping agent? | | |
|---|---|---|
| | Domestic providers | Foreign providers |
| International shipping | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Cabotage | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Internal waterways | ☐ No ☐ Yes | ☐ No ☐ Yes |
| If yes, briefly describe the conditions the agent must fulfill. | | |

| 21. Restrictions on the transportation of non-commercial (eg government, defence) cargoes. Tick whichever applies. | |
|---|---|
| No private shipping service supplier can carry non-commercial cargoes? | ☐ Yes ☐ No |
| Only national flagged suppliers can carry non-commercial cargoes? | ☐ Yes ☐ No |
| Other restrictions on commercial shipping companies carrying non-commercial cargoes? Please describe | |
| No restrictions on commercial shipping companies carrying non-commercial cargoes? | ☐ Yes ☐ No |

22. Does the government subsidise domestic shipping companies?
☐ No ☐ Yes If yes, please indicate the shipping company.

23. Has the government covered operational losses of shipping companies in the past ten years?
☐ No ☐ Yes If yes, please indicate the amount in each of these past ten years.

If you have any queries about this questionnaire, please contact:

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ERIA TRADE IN SERVICES SECTORAL QUESTIONNAIRE – TELECOMMUNICATIONS - FINAL

COVERAGE (CPC Codes)

2.C. Telecommunications Services

| | | |
|---|---|---|
| a. | Voice telephone services | 7521 |
| b. | Packet-switched data transmission services | 7523** |
| c. | Circuit-switched data transmission services | 7523** |
| d. | Telex services | 7523** |
| e. | Telegraph services | 7522 |
| f. | Facsimile services | 7521**+7529** |
| g. | Private leased circuit services | 7522**+7523** |
| h. | Electronic mail | 7523** |
| i. | Voice mail | 7523** |
| j. | On-line information and data base retrieval | 7523** |
| k. | Electronic data interchange (EDI) | 7523** |
| l. | Enhanced/value-added facsimile services, incl. store and forward, store and retrieve | 7523** |
| m. | Code and protocol conversion | n.a. |
| n. | On-line information and/or data processing (incl. transaction processing) | 843** |
| o. | Other | |

Notes: ** The service specified constitutes only a part of the total range of activities covered by the CPC item number.

INTRODUCTION

The questionnaire is divided into two parts.

- The policy section covers the conditions of *competition* in the sector, notably policy restrictions on entry; restrictions on *ownership*, private and foreign; and *regulation*, including measures to ensure access to the network, and measures to achieve social objectives such as universal access.
- The market structure section covers information on the number of firms, their market shares and actual ownership patterns.

Note (1): Please give information for the current year only.

Note (2): Whenever a question is not applicable, (eg because the particular activity or institution is not allowed), please indicate using 'NA', rather than leaving the cell blank.

Note (3): Where reporting monetary values, please note currency.

Note (4): If insufficient space is provided, please attach additional information on separate sheets.

SUGGESTED INFORMATION SOURCES

Government department in charge of regulating telecommunications.
Independent national or regional regulatory body overseeing telecommunications (if different from the above institution)
A domestically-owned and/or foreign-invested telecommunications company (if necessary)

I. Policy Section

*A. Commercial presence (mode 3) - restrictions on entry*

*a. Own-facilities basis*

| 1. Are there restrictions on new *facilities-based*[1] suppliers of telecommunication services in any of the sub-sectors listed below (other than associated with scarcity of spectrum – see Q. 26)? | | | | |
|---|---|---|---|---|
| Sub-sectors | Entry by any firm? | Total number of firms allowed? | Entry by any foreign firm? | Total number of firms allowed? |
| Local (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic long distance (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Mobile voice telephone | | | | |
| - analog, digital | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Data communications | | | | |
| - fixed | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - mobile | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Leased lines[2] | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internet access services | | | | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - fixed wireless | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Others (eg VoIP, please specify) | | | | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

| 2. If *facilities-based* entry is restricted, what are the reasons provided by the government?. | |
|---|---|
| To ensure/increase government revenue from state-owned service supplier(s) | ☐ Yes ☐ No |
| To increase government revenue from privatization of state-owned suppliers | ☐ Yes ☐ No |
| Exclusive rights believed necessary to attract (strategic) investment | ☐ Yes ☐ No |
| To give state- or locally- owned service suppliers time to prepare for competition | ☐ Yes ☐ No |
| To ensure/increase government revenue from license fees | ☐ Yes ☐ No |
| Exclusive rights believed necessary to ensure the provision of universal service | ☐ Yes ☐ No |
| Exclusive rights believed necessary to ensure national security | ☐ Yes ☐ No |
| No perceived economic need for new service suppliers | ☐ Yes ☐ No |
| Other (please state) | |

[1] This refers to suppliers who own most or all of the transmission capacity used.
[2] Leased line services are defined as the ability of telecom service suppliers to sell or lease circuits for any type of bulk network capacity (cable, satellite, wireless) to third parties. Restrictions on the ability to resell leased line capacity are covered in question 5.

| |
|---|
| 3. Are there any restrictions on *facilities-based* companies offering services in certain market segments if they are operating in another market segment (or others) (e.g., local, long distance, international, mobile)?<br><br>☐ No ☐ Yes If yes, please explain the nature of and reason for these restrictions: |

| |
|---|
| 4. Are foreign *facilities-based* telecom service suppliers required to establish under certain legal forms that are not required for domestic operators? If yes, please indicate:<br><br>☐ corporation ☐ unincorporated branch ☐ joint venture ☐ partnership ☐ trust ☐ association<br>☐ sole proprietorship |

*b. Resale basis*

5. Are there restrictions on new *resale-based*[3] suppliers of telecommunication services in any of the sub-sectors listed below?

| Sub-sectors | Entry by any firm? | Total number of firms allowed? | Entry by any foreign firm? | Total number of firms allowed? |
|---|---|---|---|---|
| Local (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic long distance (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Mobile voice telephone | | | | |
| - analog, digital | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Data communications | | | | |
| - fixed | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - mobile | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Leased lines | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internet access services | | | | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - fixed wireless | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Others (eg VoIP, please specify) | | | | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

6. If *resale-based* entry is restricted, what are the reasons provided by the government?.

| | |
|---|---|
| To encourage facilities-based competition | ☐ Yes ☐ No |
| To ensure/increase government revenue from state-owned service supplier(s) | ☐ Yes ☐ No |
| To increase government revenue from privatization of state-owned suppliers | ☐ Yes ☐ No |
| Exclusive rights believed necessary to attract (strategic) investment | ☐ Yes ☐ No |

[3] This refers to firms that lease capacity from facilities-based operators and use the leased capacity to provide services to third parties. Resellers may own switches and routers, but they do not own transmission facilities other than terminal equipment.

| | |
|---|---|
| To give state- or locally- owned service suppliers time to prepare for competition | ☐ Yes ☐ No |
| To ensure/increase government revenue from license fees | ☐ Yes ☐ No |
| Exclusive rights believed necessary to ensure the provision of universal service | ☐ Yes ☐ No |
| Exclusive rights believed necessary to ensure national security | ☐ Yes ☐ No |
| No perceived economic need for new service suppliers | ☐ Yes ☐ No |
| Other (please state) | |

7. Are there any restrictions on *resale-based* companies offering services in certain market segments if they are operating in another market segment (or others) (e.g., local, long distance, international, mobile)?

☐ No ☐ Yes If yes, please explain the nature of and reason for these restrictions:

8. Are foreign *resale-based* telecom service suppliers required to establish under certain legal forms that are not required for domestic operators? If yes, please indicate:

☐ corporation ☐ unincorporated branch ☐ joint venture ☐ partnership ☐ trust ☐ association ☐ sole proprietorship

*c. .Leased lines and private networks*

9. Are companies permitted to operate private networks of *leased lines* between their various premises?

☐ No ☐ Yes If yes, is prior authorization required? Explain how this authorization is obtained.

10. Are companies permitted to operate private networks of *"own facilities"* between their various premises?

☐ No ☐ Yes If yes, is prior authorization required? Explain how this authorization is.

11. What types of affiliated firms may be connected to the same private network?.

| | |
|---|---|
| Parent/holding companies, subsidiaries and branches | ☐ Yes ☐ No |
| Those companies above and affiliates in which there is minority ownership | ☐ Yes ☐ No |
| Is there a minimum percentage ownership required in order to be connected? | ☐ Yes ☐ No |
| If yes, please specify the percentage: | |
| Close user groups of self-selecting companies and affiliates regardless of ownership linkages | ☐ Yes ☐ No |

12. Is interconnection of these private networks to the public switched network permitted?

| | |
|---|---|
| At one end? | ☐ Yes ☐ No |
| Both ends? | ☐ Yes ☐ No |
| If yes, what conditions apply? | |

*B. Restrictions on cross-border trade (mode 1)*

*a. Own-facilities basis*

13. Are there restrictions on the cross-border supply or consumption of telecommunication services over the networks of facilities-based service suppliers in any of the sub-sectors listed above, e.g., callback?

☐ No ☐ Yes If yes, please describe:

______________________________________

14. Are there routing restrictions (e.g., do new facilities-based entrants have to use the incumbent carrier's international circuits or gateways, or are they free to choose how to route their international traffic)?

☐ No ☐ Yes If yes, please describe:

______________________________________

15. Is there an expiry date for such restrictions?

☐ No ☐ Yes If yes, please describe:

______________________________________

*a. Resale basis*

16. Are there restrictions on the cross-border supply or consumption of telecommunication services over the networks of resale-based service suppliers in any of the sub-sectors listed above, e.g., callback?

☐ No ☐ Yes If yes, please describe:

______________________________________

17. Are there routing restrictions (e.g., do resellers have to use the incumbent carrier's international circuits or gateways, or are they free to choose how to route their international traffic)?

☐ No ☐ Yes If yes, please describe:

______________________________________

18. Is there an expiry date for such restrictions?

☐ No ☐ Yes If yes, please describe:

______________________________________

19. Reasons for restrictions on cross-border competition (whether for facilities-based or resale-based services)

| | |
|---|---|
| To ensure/increase government revenue from state-owned service supplier(s) | ☐ Yes ☐ No |
| To increase government revenue from privatization of state-owned suppliers | ☐ Yes ☐ No |
| Exclusive rights believed necessary to attract (strategic) investment | ☐ Yes ☐ No |
| To give state- or locally- owned service suppliers time to prepare for competition | ☐ Yes ☐ No |
| To ensure/increase government revenue from license fees | ☐ Yes ☐ No |
| Exclusive rights believed necessary to ensure the provision of universal service | ☐ Yes ☐ No |
| Other (please state) | |

*C. Ownership*

20. Is private ownership of *facilities-based* telecom service suppliers allowed?

| | Existing operators | Maximum private equity permitted (%) | New entrants | Maximum private equity permitted (%) |
|---|---|---|---|---|
| Local (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic long distance (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Mobile voice telephone | | | | |
| - analog, digital | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Data communications | | | | |
| - fixed | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - mobile | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Leased lines | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internet access services | | | | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - fixed wireless | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Others (eg VoIP, please specify): | | | | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

21. Is foreign ownership of *facilities-based* telecom service suppliers allowed?

| | Existing operators | Maximum private equity permitted (%) | New entrants | Maximum private equity permitted (%) |
|---|---|---|---|---|
| Local (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic long distance (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Mobile voice telephone | | | | |
| - analog, digital | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

| | | | | |
|---|---|---|---|---|
| Data communications | | | | |
| - fixed | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - mobile | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Leased lines | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internet access services | | | | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - fixed wireless | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Others (eg VoIP, please specify): | | | | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

22. Is private ownership of *resale-based* telecom service suppliers allowed?

| | Existing operators | Maximum private equity permitted (%) | New entrants | Maximum private equity permitted (%) |
|---|---|---|---|---|
| Local (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic long distance (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Mobile voice telephone | | | | |
| - analog, digital | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Data communications | | | | |
| - fixed | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - mobile | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Leased lines | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internet access services | | | | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - fixed wireless | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Others (eg VoIP, please specify): | | | | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

| 23. Is foreign ownership of *resale-based* telecom service suppliers allowed? | | | | |
|---|---|---|---|---|
| | Existing operators | Maximum private equity permitted (%) | New entrants | Maximum private equity permitted (%) |
| Local (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Domestic long distance (fixed) voice telephone services | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| International (fixed) voice telephone services | | | | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Mobile voice telephone | | | | |
| - analog, digital | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - satellite | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Data communications | | | | |
| - fixed | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - mobile | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Leased lines | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Internet access services | | | | |
| - wire/cable | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - fixed wireless | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| Others (eg VoIP, please specify): | | | | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |
| - | ☐ No ☐ Yes | | ☐ No ☐ Yes | |

*D. Regulation*

*a. The regulator*

| 24. Characteristics of the sector regulator | |
|---|---|
| Name of regulator | |
| When was the regulator established? | |
| Is the regulator institutionally separate from the ministry responsible for telecommunications？ | ☐ No ☐ Yes |
| If yes, when was the regulator made separate? | |
| Are the decisions of the regulator self-executing, or must they be approved by the ministry or government before they can take effect | ☐ Self-executing<br>☐ Need Ministry approval |

*b. Licensing*

25. Are individual or general/class *operating licenses* required for the provision of the following services?[4] What type of selection process is used (include bureaucratic discretion under 'beauty contest')?

| Service Sub-sector | Type of Licence Required[5] | Type of Selection Process | | |
|---|---|---|---|---|
| Local (fixed) voice telephone services - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Local (fixed) voice telephone services - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Domestic long distance (fixed) voice telephone services - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Domestic long distance (fixed) voice telephone services - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| International (fixed) voice telephone services - wire/cable - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| International (fixed) voice telephone services - wire/cable - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| International (fixed) voice telephone services - satellite - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| International (fixed) voice telephone services - satellite - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Mobile voice telephone – analog/digital - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |

[4] Operating licences are for purposes of supplying a service. They are distinct from radiocommunications/ spectrum licences for the use of radio frequencies.

[5] Individual (or operator-specific) licenses are generally customized and detailed (and may be specific to a particular technology), are frequently granted through some sort of competitive selection process, and are typically used when a regulator has an interest in ensuring a service is provided in a particular manner (eg where the operator is deemed to have market power). General authorisations (or class licences) establish general conditions of operation, typically including consumer protection, and are generally issued without a competitive selection process to all qualified entities.

| | | | | |
|---|---|---|---|---|
| Mobile voice telephone – analog/digital - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Mobile voice telephone - satellite - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Mobile voice telephone - satellite -resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Data communications - fixed - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Data communications - fixed - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Data communications - mobile - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Data communications - mobile - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Leased lines - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Leased lines -resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Internet access services - - wire/cable - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Internet access services - - wire/cable - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |

| | | | | |
|---|---|---|---|---|
| Internet access services - - fixed wireless - facilities based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Internet access services - - fixed wireless - resale based | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Others (eg VoIP, please specify)- | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| - | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |

26. When s*pectrum licenses* are required for the provision of the following services, what processes are required (include bureaucratic discretion under 'beauty contest')?[6] The service providers in this context are all facilities-based, in that they all must hold a spectrum licence.

| Service Sub-sector | Type of Licence Required | Type of Selection Process | | |
|---|---|---|---|---|
| Local (fixed) voice telephone services | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Long Distance (fixed)<br>voice telephone services | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| International (fixed) voice telephone services<br>- satellite | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Mobile voice telephone - analog/digital | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Mobile voice telephone - satellite | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Data communications - fixed | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |

[6] Operating licences are for purposes of supplying a service. They are distinct from radiocommunications/ spectrum licences for the use of radio frequencies.

| | | | | |
|---|---|---|---|---|
| Data communications - mobile | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Internet access services - - fixed wireless | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| Others (eg VoIP, please specify) | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |
| | ☐ Individual<br>☐ General | ☐ Auction<br>☐ "Beauty Contest"<br>☐ Combination<br>☐ First come, first served | | |

27. Do any licences grant exclusive rights?

☐ No ☐ Yes If yes, please indicate the nature of those exclusive rights, the relevant market segments and when the exclusive rights will expire.

_______________________________________________

28. Are separate licenses required to establish branches in each state/province?

☐ No ☐ Yes

29. Specify the main licensing conditions new entrants must fulfill.

| | |
|---|---|
| Payment of license fee? | ☐ No ☐ Yes |
| Presentation of detailed business plan? | ☐ No ☐ Yes |
| Network coverage / satellite footprint requirements | ☐ No ☐ Yes |
| Minimum capital? | ☐ No ☐ Yes |
| Safeguards against anti-competitive behaviour? | ☐ No ☐ Yes |
| Compatible home country regulation? | ☐ No ☐ Yes |
| Other (please state): | |

30. Are foreign-owned telecommunication service suppliers subject to different licensing conditions from domestic suppliers?

☐ No ☐ Yes If yes, please specify what additional requirements have to be met by foreign suppliers

_______________________________________________

| |
|---|
| 31. Once the licenses have been allocated, are there restrictions on firms' ability to sell, dispose of, or otherwise transfer these licenses?<br><br>☐ No ☐ Yes If yes, please explain the policy and methods allowed: |
| Does spectrum trading occur?<br><br>☐ No ☐ Yes |

*c. Regulation of network interconnection*

| 32. How are interconnection agreements among service providers determined? | | | | |
|---|---|---|---|---|
| | Between fixed line service providers | Between mobile and fixed line carriers | Between mobile carriers | Between internet service providers |
| Private negotiation between parties? | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Private negotiation, but general terms set by regulatory agency? | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Detailed terms set by regulatory agency? | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Other (please specify): | | | | |

| 33. Which of the following aspects of interconnection are set by the regulatory agency? | | | | |
|---|---|---|---|---|
| | Between fixed line service providers | Between mobile and fixed line carriers | Between mobile carriers | Between internet service providers |
| Technical standards? | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Procedures for interconnection? | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Time frames for interconnection? | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Points of interconnection? | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Price of interconnection? | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Other (please specify): | | | | |

| 34. Which of the following interconnection pricing rules apply in your country? | | | |
|---|---|---|---|
| | Between fixed line service providers | Between mobile and fixed line carriers | Between mobile carriers |
| Reciprocal pricing[7] | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Unbundling[8] | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Imputation[9] | ☐ No ☐ Yes | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Other (please specify): | | | |

[7] Reciprocal pricing requires that all networks charge the same amount to terminate calls coming from other networks.
[8] Unbundling requires the dominant network operator to sell network components independently of each other, so that rival networks are not forced to buy services they do not need.
[9] Imputation rules are designed to eliminate any markup on services components sold to competing firms over and above the implicit charges for internal use — and should tend to equalize prices charged by direct competitors.

| 35. Other aspects of interconnection | |
|---|---|
| Are actual interconnection agreements required to be made public? | ☐ No ☐ Yes |
| Are reference agreements publicly available? | ☐ No ☐ Yes |
| Are mobile phone carriers allowed to charge for incoming mobile calls? | ☐ No ☐ Yes |

*d. Regulation of end-user tariffs*

| 36. How are end used tariffs determined in your country? | | |
|---|---|---|
| | For fixed line calls | For mobile calls |
| By market forces (ie not regulated) | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Average price caps for groups of services established by the regulator (eg CPI-X caps) | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Price caps for individual services established by the regulator (eg CPI-X caps) | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Rate of return regulation | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Other cost-based regulation | ☐ No ☐ Yes | ☐ No ☐ Yes |
| Other (please specify): | | |

| 37. Tariff rebalancing[10] | |
|---|---|
| Are fixed line services providers allowed to charge a subscriber access charge (eg per month) as well as a charge per call? | ☐ No ☐ Yes |
| Have tariffs been rebalanced? | ☐ No ☐ Yes |
| Are there plans to rebalance tariffs? | ☐ No ☐ Yes |
| If yes, when is the plan scheduled to be completed | |

*e. Universal Service*

| 38. How does the government define universal service (or universal access)? |
|---|
| ____________________________________________ |

| 39. What are the policy instruments used to pursue the universal service objective? | |
|---|---|
| Monopoly? | ☐ No ☐ Yes |
| Roll-out obligations in services licences? | ☐ No ☐ Yes |
| Subsidies to operator(s); e.g., from universal service funds or state budgets | ☐ No ☐ Yes |
| Vouchers or other forms of subsidy to target consumers? | ☐ No ☐ Yes |
| Other (please state): | |

[10] Tariff rebalancing may be required when the dominant fixed line carrier provides both local and long distance/international services. Rebalancing is sometimes defined as the elimination of cross subsidies from long distance/international services to local call services. A broader definition (eg as used by ITU) is the elimination of the subscriber access deficit, ie eliminating the undercharging for subscriber access (as distinct from use), for example by instituting a separate subscriber access charge.

| 40. On which service suppliers are universal service obligations imposed?? | |
|---|---|
| Incumbent operator? | ☐ No ☐ Yes |
| Private operators offering local services? | ☐ No ☐ Yes |
| Private operators offering long distance and international services? | ☐ No ☐ Yes |
| Other (please state): | |

II. Market Structure

| 41. Please list the characteristics of all facilities-based operators providing the following services. | | | |
|---|---|---|---|
| Name of firm | Year of service commencement | Market share | Owners of capital and their respective shares (domestic/foreign/ government) |
| Domestic fixed line | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| International fixed line (combine with above only if necessary) | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Mobile voice telephone services (analog/digital) | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| 42. Other | |
|---|---|
| How many providers are offering telecommunications services through networks other than the public switched network? | |
| VoIP | |
| Through cable TV network | |
| By satellite | |
| Other (eg through electricity networks – please state) ________________ | |
| How many internet service providers are there? | |

If you have any queries about this questionnaire, please contact:

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ERIA TRADE IN SERVICES SECTORAL QUESTIONNAIRE – ASEAN SINGLE WINDOW

COVERAGE

This questionnaire covers regulations and procedures that have been identified in business surveys as providing the most prevalent and/or significant barriers to the movement of goods across borders within the ASEAN region. The research findings were summarised in the chapter on Trade Facilitation in ERIA Research Project Report 2008 No. 1 on Deepening East Asian Economic Integration.

INTRODUCTION

The questionnaire is divided into two parts.

- The national policy section covers progress toward achieving a National Single Window for goods clearance, the introduction of electronic information exchange and management, and the development of transparency in trade regulation.
- The regional cooperation section covers national progress towards participating in an ASEAN Single Window, towards streamlining and harmonising Customs marking requirements, and towards granting mutual recognition of conformance assessments of whether goods meet each country's technical requirements.

Note (1): Please give information for the current year only.

Note (2): Whenever a question is not applicable, (eg because the particular activity or institution is not allowed), please indicate using 'NA', rather than leaving the cell blank. Please also explain why the question is not applicable.

Note (3): Where reporting monetary values, please note currency.

Note (4): If insufficient space is provided, please attach additional information on separate sheets.

SUGGESTED INFORMATION SOURCES

Government department in charge of Customs
Other agencies involved in the clearance of goods at borders, ie banks, insurance companies, port authorities, other agencies involved in issuing permits, transport companies, importers
A logistics company (if necessary)

I. National Policy

*A. National Single Window*

| 1. Is there a single point of entry for the submission of all data and information required to move goods across borders? | |
|---|---|
| Pilot scheme (eg only at some ports)? | ☐ No ☐ Yes |
| Full implementation at all points of entry? | ☐ No ☐ Yes |

| 2. How must the data be submitted? | |
|---|---|
| Paper? | ☐ No ☐ Yes |
| Electronically? | ☐ No ☐ Yes |
| Mix of both? | ☐ No ☐ Yes |

| 3. How is the data processed? | |
|---|---|
| Entered into a single database for use by all relevant agencies? | ☐ No ☐ Yes |
| Entered into two separate databases (or passed on twice) for different purposes? | ☐ No ☐ Yes |
| Entered into three separate databases (or passed on three times) for different purposes? | ☐ No ☐ Yes |
| Entered into four separate databases (or passed on four times) for different purposes? | ☐ No ☐ Yes |
| Entered into five or more separate databases (or passed on five or more times) for different purposes? | ☐ No ☐ Yes |

| 4. Clearance and release | |
|---|---|
| Is there a time limit for approval of declarations? | ☐ No ☐ Yes |
| Is actual performance measured against target? | ☐ No ☐ Yes |
| Is there a fast-lane procedure for regular importers with a good track record? | ☐ No ☐ Yes |
| Can duty payment be made by electronic funds transfer? | ☐ No ☐ Yes |
| Is there automatic release of goods once payment is received? | ☐ No ☐ Yes |

| 5. Risk assessment | No | Sometimes | Yes |
|---|---|---|---|
| Are there clearly identified risk assessment criteria for cargo inspection? | ☐ | ☐ | ☐ |
| Is pre-arrival information used in risk assessment? | ☐ | ☐ | ☐ |
| Is selection for examination done electronically, based on risk criteria? | ☐ | ☐ | ☐ |
| Is X-ray equipment used in examination | ☐ | ☐ | ☐ |
| Is manual inspection subject to time limits? | ☐ | ☐ | ☐ |

*B. Transparency and due process*

| 6. Trade regulation | |
|---|---|
| Is trade regulation available online? | ☐ No ☐ Yes |
| How often is the website updated – please state (eg monthly, annually) | |
| Is there provision for online feedback from importers etc? | ☐ No ☐ Yes |

| | |
|---|---|
| Is there a telephone hotline for queries about procedures? | ☐ No ☐ Yes |
| Is there a formal system of consultation between Customs and industry participants (importers, freight forwarders, transport operators? | ☐ No ☐ Yes |
| If yes, please give details (eg how often it is convened, who participates) | |
| Is there a system of appeals in Customs matters? | ☐ No ☐ Yes |
| If yes, please give details (eg name of organisation, whether it is independent of Customs Department: | |

| | |
|---|---|
| 7. Performance | |
| Are clearance times measured according to the World Customs Organisation's time-release methodology? | ☐ No ☐ Yes |
| Is the data made public? | ☐ No ☐ Yes |

<u>II. Regional Cooperation</u>

| | |
|---|---|
| 8. Is your country participating in the ASEAN Single Window? | |
| Pilot scheme (eg only at some ports, or for limited time)? | ☐ No ☐ Yes |
| Full implementation at all points of entry? | ☐ No ☐ Yes |

| | |
|---|---|
| 9. Is your country working towards streamlining and harmonising Customs marking requirements[1] within ASEAN? | |
| Developing preferred approach at national level? | ☐ No ☐ Yes |
| Participating in regional discussions? | ☐ No ☐ Yes |

| | |
|---|---|
| 10. Is your country working towards mutual recognition of conformance assessments within ASEAN? | |
| Developing preferred approach at national level? | ☐ No ☐ Yes |
| Participating in regional discussions? | ☐ No ☐ Yes |

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[1] The Customs marking requirement is a technical standard that defines the information to be printed on the package such as country of origin, weight, special symbols for dangerous substances and the like.

# Trade Facilitation toward the ASEAN Economic Community

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*Establishment of the ASEAN Economic Community (AEC) hinges largely on successful and on-time implementation of the AEC Blueprint. A monitoring system is a vital component of effective implementation. This paper contributes to the monitoring debate by (1) developing a composite indicator of trade costs for each individual ASEAN member country, which indicates success in trade facilitation and can be used to assess proximity to regional best practice, and (2) comparing the composite indicator with the AEC Scorecard approach endorsed by ASEAN member countries.*

*The Index of Trade Costs is based on the gap between cif and fob values of ASEAN exports to third countries using import data from the USA, Australia, Brazil and Chile for 1990-2008. We conduct econometric analysis to better understand why trade costs vary across countries and to compare the ASEAN members' record to the global average. Trade costs vary between ASEAN members, but the results indicated substantial reduction, converging on the lowest-cost trader (Singapore) and coinciding with increased attention to trade facilitation in ASEAN during the 1990s.*

*The Index of Trade Costs and the Scorecard approach are complementary. The Index of Trade Costs is a simple scalar measure of trade costs, which indicates success in trade facilitation and can be used to assess proximity to regional or global best practice. The Scorecard approach indicates whether governments have implemented specific measures, such as mutual recognition agreements, or ratified ASEAN decisions that are critical to establishing the AEC.*

## 1. Introduction

Establishment of the ASEAN Economic Community (AEC) hinges largely on successful and on-time implementation of the AEC Blueprint. A monitoring system is a vital component of effective implementation. This paper contributes to the monitoring debate in two ways. First, we develop a composite indicator of trade costs for each individual ASEAN member country. Second, we compare and contrast the composite indicator with the AEC Scorecard approach to monitoring.

The indicator of trade costs in Sections 2-4 is based on the gap between cif and fob values of ASEAN exports to third countries. The cif/fob gap is a commonly used aggregate measure of trade costs, i.e. the difference between the costs of a domestic and an international transaction apart from tariffs and behind-the-border costs. In an earlier paper (*ERIA Discussion Paper Series ERIA-DP-2009-12*, April 2009), we set out the case for using such a measure of trade costs and reported results using Australian import data. Although there are many definitions of trade costs and of trade facilitation, the cif/fob gap is suitable as an operational definition, using universally acceptable concepts and approximating the cost of international as opposed to domestic trade. It includes transport and logistics costs which may be driven by technical improvements as well as by improved policies and procedures. The cif/fob measure should be treated as a benchmark rather than a perfect way to capture the impact of trade facilitation commitments.

We conducted econometric analysis of the cif/fob measure to better understand why trade costs vary across countries and to compare the ASEAN members' record to the global average during the period 1990-2007. The results indicated variation in trade costs between ASEAN members, but also substantial reduction of trade costs, converging on the lowest cost trader (Singapore) and coinciding with increased attention to trade facilitation in ASEAN during the 1990s. The present paper aims to establish whether any biases arose from using Australian data, and to refine the measure further.

The next section reports cif/fob trade cost measures for ASEAN countries based on import data from the USA, Australia, Brazil and Chile. Section 3 conducts econometric analysis of the determinants of trade costs and Section 4 reports an Index of Trade Costs.

Section 5 compares and contrasts the Index approach to the AEC Scorecard approach. Section 6 draws some conclusions.

## 2. Trade Costs in ASEAN Member Countries

This section uses cif/fob data for 1990-2008 from four major importing countries: USA, Australia, Brazil and Chile to examine ASEAN countries' trade costs. These countries' customs agencies collect detailed information on their imported goods at the HS6 digit level of aggregation and are among the few countries which report fob and cif values as well as mode of transport (sea, air, road, river, parcel post, etc.).[1] The usable dataset contains more than 8 million observations from the four importing countries for 242 exporting countries, including the 10 ASEAN member economies.

Table 1 reports average import-weighted ad valorem trade costs (trade costs as a proportion of import value) for all four importers. On average, trade costs for all importers and over all exporters fell from 5.5% ad valorem in 1990 to 4.2% in 2008, a 24% decline. Ad valorem trade costs for imports arriving by air are lower than by sea reflecting the fact that higher value goods are generally shipped by air freight. Trade costs for air-freighted imports fell slightly faster at 25% as compared to imports arriving by sea at 22% over the same period. For ASEAN members, trade costs declined over the same period, but at a slightly lower rate at 19%. This pattern of falling trade costs over time can be clearly seen in Figure 1.

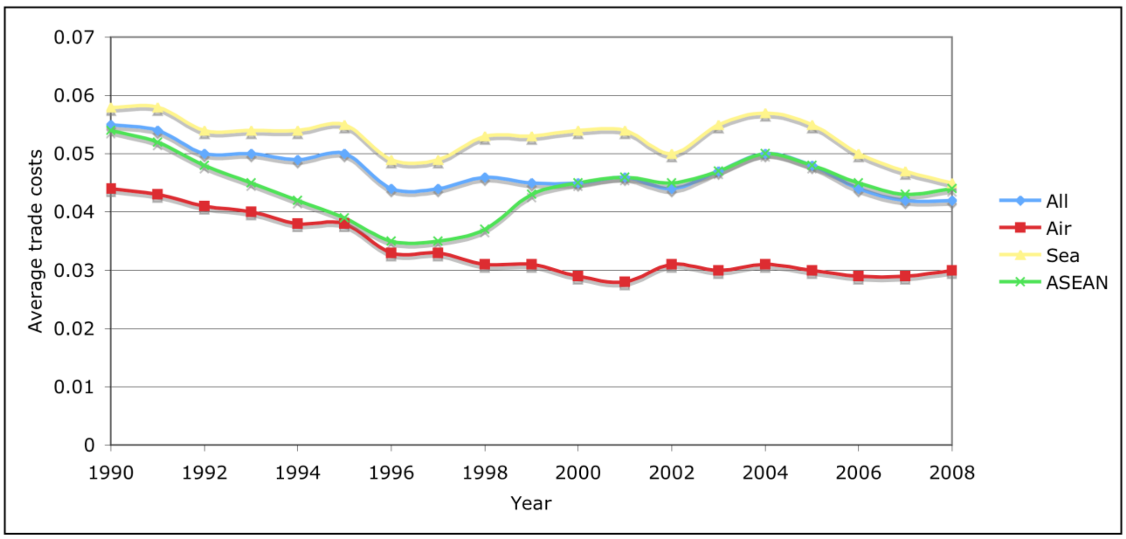
[1] Because of the need to distinguish between modes of transport and to adjust for the commodity composition of trade at a disaggregated level, use of the cif/fob gap is time- and data-intensive. More constraining, few countries report the fob and cif values of trade data in sufficient detail to be useful (e.g. to allow for commodity composition effects). The US data are the most detailed, but may be contaminated by some imports arriving by land, which is difficult to monitor; e.g. imports from ASEAN may be shipped through Vancouver before entering the USA overland. We are grateful to ALADI for assistance obtaining data for Brazil and Chile. The Chilean results revealed problems with a smaller trading nation's data having commodity groups with few observations producing an excessively volatile Index.

**Table 1: Average trade costs. All importers.**

| Year | All | Air | Sea | ASEAN | | Year | All | Air | Sea | ASEAN |
|---|---|---|---|---|---|---|---|---|---|---|
| **1990** | 0.055 | 0.044 | 0.058 | 0.054 | | **2000** | 0.045 | 0.029 | 0.054 | 0.045 |
| **1991** | 0.054 | 0.043 | 0.058 | 0.052 | | **2001** | 0.046 | 0.028 | 0.054 | 0.046 |
| **1992** | 0.050 | 0.041 | 0.054 | 0.048 | | **2002** | 0.044 | 0.031 | 0.050 | 0.045 |
| **1993** | 0.050 | 0.040 | 0.054 | 0.045 | | **2003** | 0.047 | 0.030 | 0.055 | 0.047 |
| **1994** | 0.049 | 0.038 | 0.054 | 0.042 | | **2004** | 0.050 | 0.031 | 0.057 | 0.050 |
| **1995** | 0.050 | 0.038 | 0.055 | 0.039 | | **2005** | 0.048 | 0.030 | 0.055 | 0.048 |
| **1996** | 0.044 | 0.033 | 0.049 | 0.035 | | **2006** | 0.044 | 0.029 | 0.050 | 0.045 |
| **1997** | 0.044 | 0.033 | 0.049 | 0.035 | | **2007** | 0.042 | 0.029 | 0.047 | 0.043 |
| **1998** | 0.046 | 0.031 | 0.053 | 0.037 | | **2008** | 0.042 | 0.030 | 0.045 | 0.044 |
| **1999** | 0.045 | 0.031 | 0.053 | 0.043 | | | | | | |

Note: import weighted ad valorem trade costs; ad valorem trade costs = $\left(\frac{\sum cif}{\sum fob} - 1\right)$

**Figure 1: Average Trade costs, all importers, 1990-2008.**




Since we have four importing countries, it is instructive to examine how trade costs vary by importing country. Sourdin and Pomfret (2009) using only Australian import data found average weighted trade costs ranging from 8% in 1990 to 5% in 2007. Table A1 in the Appendix reports average trade costs by importing country. Imports into the USA exhibit the lowest ad valorem trade costs followed by Australia, Brazil and Chile, with Australia and Brazil experiencing the largest fall since 1990 and little change over the period for Chilean imports. Since the USA is the largest of the four markets, the higher volume of trade to the USA contributes to lower trade costs when the data are aggregated.

The variation in trade costs across importing country points to the importance of both the exporting and importing country in the determination of trade costs.

Turning to ASEAN member countries, Table 2 highlights the variation in ad valorem trade costs among the individual ASEAN countries’ exports to Australia, USA, Chile and Brazil from 1990-2008. Weighted average ad valorem trade costs for individual Asian trading partners in 1990-2008 are reported in Appendix Table A2. The final column in Table 2 presents the ASEAN average. While there is a large variation in trade costs in 1990, by 2008 the ASEAN economies' trade costs appear to be converging. Graphically, Table 2 results are presented in Figures 2 and 3 along with the global (i.e. for all exporters) averages. For the original five ASEAN members there is a substantial decline in trade costs during the 1990s and convergence towards the lowest cost country, Singapore, although in the 2000s there is no clear trend. For the other five ASEAN member countries it is harder to identify a trend due to the higher volatility – especially for Laos and Cambodia – reflecting the small number of trade items.

**Table 2: Average import weighted trade costs ASEAN countries. 1990-2008.**

| Year | BRN | IDN | KHM | LAO | MMR | MYS | PHL | SGP | THA | VNM | ASEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1990** | 0.072 | 0.102 | 0.176 | 0.104 | 0.049 | 0.05 | 0.074 | 0.03 | 0.059 | 0.072 | 0.054 |
| **1991** | 0.073 | 0.102 | 0.013 | 0.033 | 0.084 | 0.047 | 0.071 | 0.028 | 0.057 | 0.127 | 0.052 |
| **1992** | 0.056 | 0.085 | 0.029 | 0.075 | 0.046 | 0.041 | 0.063 | 0.025 | 0.055 | 0.085 | 0.048 |
| **1993** | 0.056 | 0.083 | 0.096 | 0.065 | 0.042 | 0.038 | 0.059 | 0.023 | 0.054 | 0.076 | 0.045 |
| **1994** | 0.036 | 0.079 | 0.067 | 0.074 | 0.046 | 0.035 | 0.055 | 0.023 | 0.05 | 0.087 | 0.042 |
| **1995** | 0.045 | 0.073 | 0.077 | 0.08 | 0.048 | 0.032 | 0.052 | 0.021 | 0.046 | 0.067 | 0.039 |
| **1996** | 0.042 | 0.067 | 0.064 | 0.073 | 0.053 | 0.031 | 0.042 | 0.017 | 0.043 | 0.077 | 0.035 |
| **1997** | 0.04 | 0.066 | 0.066 | 0.057 | 0.057 | 0.031 | 0.036 | 0.018 | 0.039 | 0.073 | 0.035 |
| **1998** | 0.063 | 0.07 | 0.062 | 0.051 | 0.058 | 0.031 | 0.033 | 0.019 | 0.043 | 0.079 | 0.037 |
| **1999** | 0.069 | 0.081 | 0.072 | 0.053 | 0.061 | 0.033 | 0.038 | 0.022 | 0.059 | 0.065 | 0.043 |
| **2000** | 0.062 | 0.082 | 0.066 | 0.076 | 0.051 | 0.035 | 0.039 | 0.022 | 0.062 | 0.069 | 0.045 |
| **2001** | 0.072 | 0.08 | 0.057 | 0.066 | 0.043 | 0.036 | 0.04 | 0.023 | 0.059 | 0.084 | 0.046 |
| **2002** | 0.058 | 0.074 | 0.07 | 0.06 | 0.044 | 0.032 | 0.041 | 0.024 | 0.061 | 0.071 | 0.045 |
| **2003** | 0.061 | 0.074 | 0.058 | 0.072 | 0.043 | 0.032 | 0.043 | 0.027 | 0.061 | 0.077 | 0.047 |
| **2004** | 0.07 | 0.081 | 0.063 | 0.088 | 0.048 | 0.035 | 0.049 | 0.027 | 0.062 | 0.084 | 0.050 |
| **2005** | 0.047 | 0.079 | 0.061 | 0.033 | 0.054 | 0.032 | 0.05 | 0.028 | 0.059 | 0.08 | 0.048 |
| **2006** | 0.043 | 0.069 | 0.064 | 0.029 | 0.045 | 0.03 | 0.047 | 0.026 | 0.055 | 0.072 | 0.045 |
| **2007** | 0.035 | 0.064 | 0.055 | 0.051 | 0.045 | 0.031 | 0.045 | 0.026 | 0.047 | 0.067 | 0.043 |
| **2008** | 0.036 | 0.059 | 0.056 | 0.048 | 0.05 | 0.032 | 0.047 | 0.028 | 0.047 | 0.066 | 0.044 |

**Figure 2: Average trade costs for exports to USA, Australia, Chile and Brazil, 1990-2008. Indonesia, Malaysia, Philippines, Singapore, and Thailand.**

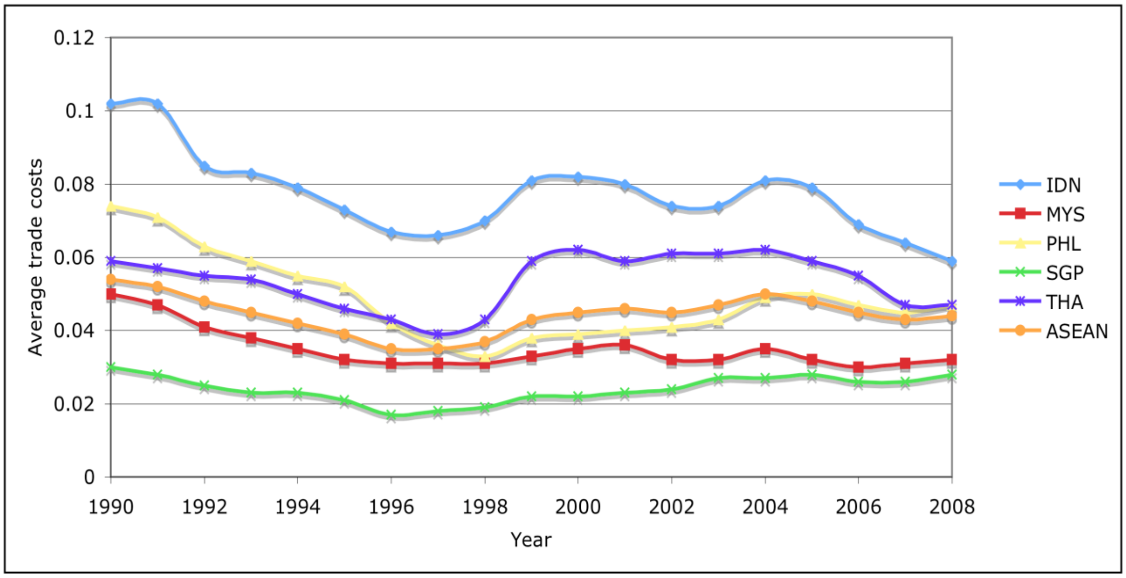
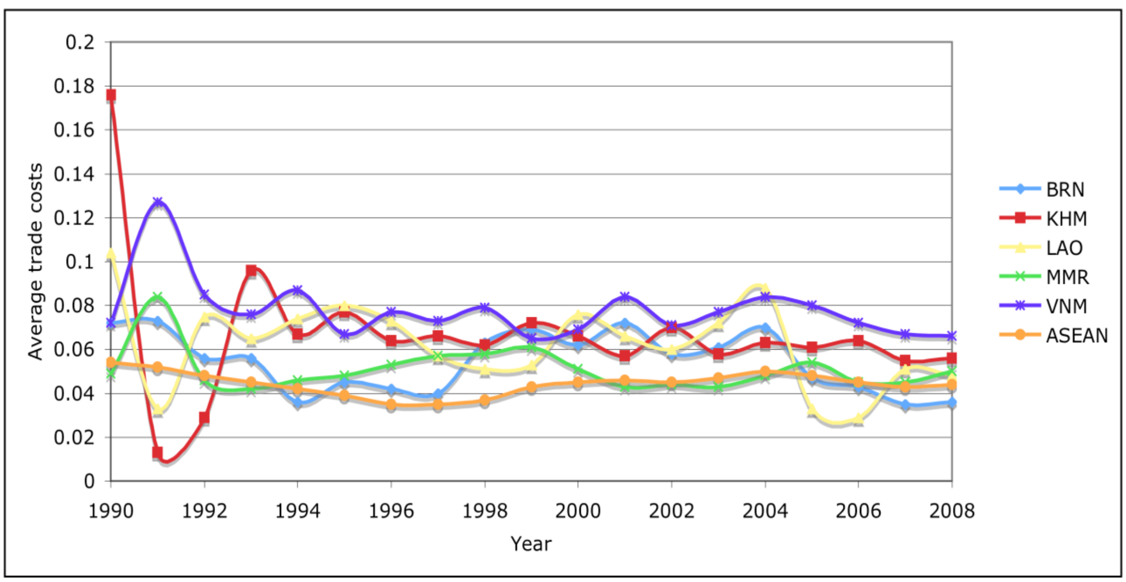



**Figure 3: Average trade costs for exports to USA, Australia, Chile and Brazil, 1990-2008. Brunei, Cambodia, Lao PDR, Myanmar, Viet Nam.**



## 3. Why Do Trade Costs Vary? Econometric Analysis of Trade Cost Determination

In this section we analyze econometrically the determinants of ad valorem trade costs. There are many factors contributing to the level of ad valorem trade costs. Our modeling strategy follows earlier studies in that we model trade costs as a function of exogenous factors such as distance or landlockedness and endogenous factors such as trade volumes and institutional variables that are directly thought to influence trade costs.[2] For ASEAN member countries for 2008 we estimate trade cost functions based on the following:

$$\left(\left(cif - fob\right)/ fob\right)_{ij}^{k} = f\left(dist_{ij}, imports_{ij}, VW_{ij}^{k}, llock_{i}, institutions_{i}\right) \quad (1)$$

in which ad valorem trade costs $\left(\left(cif - fob\right)/ fob\right)_{ij}^{k}$ for commodity $k$ from country $i$ to country $j$ depend on the distance between the two countries $\left(dist_{ij}\right)$, a dummy for landlocked exporting countries to proxy added border crossings $\left(llock_{i}\right)$, the value to weight ratio for commodity $k$ from exporting country $i$ to importing country $j$ $\left(VW_{ij}^{k} = cif \text{ value divided by weight in kilograms}\right)$ since for a given weight, a higher value good will have lower ad valorem trade costs, *total* bilateral imports from the exporting country to the importing country $\left(imports_{ij}\right)$ to capture scale effects, and measures of either institutional quality or indicators capturing trade facilitation measures in the exporting country.

We use three measures of general institution or infrastructure quality aimed at capturing any trade-enabling or trade-cost-reducing factors present in the exporting country. The first measure is the Enabling Trade Index (ETI) from the World Economic Forum. The ETI is designed to measure the "institutions, policies, and services facilitating the free flow of goods over borders and to final destinations".[3] The index is composed of four

[2] For example, Korinek and Sourdin (2009), Sourdin and Pomfret (2009), Clark, Dollar and Micco (2004), Fink, Mattoo and Neagu (2002), Wilmsmeier and Hoffmann (2008), Hummels (2007), Hummels, Lygovysky and Skiba (2009), Micco and Perez (2002), Mirza and Habib (2009), Moreira, Volpe and Blyde (2008) and Wilmsmeier, Hoffmann and Sanchez (2006).

[3] *The Global Enabling Trade Report* 2009, World Economic Forum. Of the importing countries, Australia ranks 14th overall, USA 16th, Chile 19th and Brazil 87th out of the 121 countries included in the survey. For the ASEAN economies, Singapore ranks 1st place overall followed by Malaysia (28), Thailand (50), Indonesia

subindexes to capture the main enablers of trade; (1) market access, (2) border administration, (3) transport and communications infrastructure, and (4) the business environment. We use the 2009 index which is the latest available and relates to the year 2008. A higher value of the index indicates higher quality trade enabling measures in place and therefore we expect a negative relationship between the ETI and ad valorem trade costs.

The second institutional variable we use is a measure of overall infrastructure quality from the World Economic Forum's *Global Competitiveness Report*. The infrastructure index is one of the components of the Global Competitiveness Index and is made up of indexes relating to the quality of port infrastructure, telephony, electricity supply, air transport infrastructure, roads and railroad infrastructure.[4] A higher index is indicative of higher quality infrastructure and we therefore expect a negative relationship between ad valorem trade costs and the infrastructure quality index.

The third measure is the Corruptions Perceptions Index from Transparency International which indicates the degree of public sector corruption as perceived by the business community and country analysts.[5] This index is measured on a scale from 0 – 10, with a higher number indicating less corruption.

For 2008, we rank the ASEAN countries according to the level of average ad valorem trade costs for sea and air and by each of the indexes outlined above. Tables 3 and 4 report the rankings for ASEAN-6 countries for air and sea freighted exports respectively. Spearman rank correlation tests for airfreighted goods confirm that the rankings are not independent and are statistically significant for all ranking pairs except for the CPI ranking. On the other hand, for sea-transported goods, the rankings are statistically independent only for the CPI – trade costs pair of rankings. [6]

(62), Philippines (82), Viet Nam (89) and Cambodia (91). Laos, Myanmar and Brunei were not included in the survey and therefore not included in the econometric analysis.

[4] Of the ASEAN countries, Singapore ranks 2nd overall, Malaysia (19), Thailand (35), Brunei (39), Cambodia (82), Philippines (94), Indonesia (96) and Viet Nam (98). Laos and Myanmar were not represented.

[5] Singapore ranks 4th, Thailand (40), Malaysia (47), Viet Nam (121), Indonesia (126), Philippines (141), Laos (151), Cambodia (166) and Myanmar (178).

[6] Results of the tests are available upon request.

**Table 3: 2008 Rankings for air freighted goods.**

| Country | Ad valorem Trade costs | Enabling Trade index | Overall infrastructure | Corruptions Perceptions Index | Air infrastructure |
|---|---|---|---|---|---|
| **SGP** | 1 | 1 | 1 | 1 | 1 |
| **MYS** | 2 | 2 | 2 | 2 | 2 |
| **PHL** | 3 | 5 | 4 | 6 | 5 |
| **THA** | 4 | 3 | 3 | 3 | 3 |
| **IDN** | 5 | 4 | 5 | 5 | 4 |
| **VNM** | 6 | 6 | 6 | 4 | 6 |

**Table 4: 2008 Rankings for sea freighted goods.**

| Country | Ad valorem trade costs | Enabling Trade index | Overall infrastructure | Corruptions Perceptions Index | Port infrastructure |
|---|---|---|---|---|---|
| **SGP** | 1 | 1 | 1 | 1 | 1 |
| **MYS** | 2 | 2 | 2 | 2 | 2 |
| **VNM** | 3 | 6 | 8 | 4 | 8 |
| **THA** | 4 | 3 | 3 | 3 | 4 |
| **PHL** | 5 | 5 | 6 | 6 | 6 |
| **IDN** | 6 | 4 | 7 | 5 | 7 |

Table 5 presents regression results using 2008 data for ASEAN countries. Three models are estimated each of which take the different institution/infrastructure variables into consideration. For each model, three different equations are estimated; one which includes the full sample and two models where the sample is split into goods arriving by sea and goods arriving by air.[7] The results show that distance has the expected positive sign and is statistically significant at the one percent level in all specifications, but has a larger impact on goods arriving by air than on sea-shipped imports. The value to weight ratio, which captures the degree of bulkiness of an imported product, is also statistically significant in all equations, but has a larger impact on ad valorem trade costs for goods

[7] The reported data does not include 6-digit product groups which are not traded (zero flows) and as such the omitted trade flows may represent goods whose trade costs are prohibitively high. If this is correct, then our estimates are likely biased downwards.

arriving by sea. The size of bilateral imports is statistically negative in all models, pointing to the presence of scale effects.[8] For a 10 percent rise in bilateral imports, estimated trade costs decrease by between 0.8 and 0.9 percent. This scale effect captures reduced transport costs from higher volumes on a particular route as well as enhanced trade facilitation efforts of important trading partners. The mode of transport, captured by a dummy variable equal to unity for sea and zero for air indicates that sea transport is less expensive than air transport, on average on a per value basis. The differences in coefficient values and in goodness of fit measures ($R^2$) indicate that not only the level of trade costs but also their determinants differ according to mode of transport.

In columns 1 to 3, we find that the Enabling Trade Index is negatively related to trade costs for seaborne imports but not for airborne imports. This suggests that trade-enabling measures may be better directed toward trade arriving by sea since the vast majority of trade occurs by containerized vessels, and appears to not matter for goods arriving by air. For the models where infrastructural quality is included, there are mixed results. While it matters for seaborne trade, the sign is unexpectedly positive for airborne trade. The simple correlation between *infr* and *log(adval)* is negative suggesting there may be some multicollinearity in the model. Using the Transparency International measure, *cpi*, the quality of institutions matters for seaborne trade but not for airborne, which is in contrast to Sourdin and Pomfret (2009) who found that for all exporters into Australia institutional quality mattered for airborne trade but not seaborne.

[8] It is possible that the volume of imports is endogenous in a trade cost equation since higher trade volumes act to reduce trade and transport costs and higher trade costs reduce the volume of trade. Due to the lack of a suitable instrument we were not able to deal with this potential source of endogeneity bias. In addition, GMM estimation was performed with not appreciable differences in results.

**Table 5: Baseline regressions, 2008. Dependent variable:** $\text{Log}\left((cif - fob)/fob\right)$

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | **Sea only** | **Air only** | **Full sample** | **Sea only** | **Air only** | **Full sample** | **Sea only** | **Air only** | **Full sample** |
| **Log(distance)** | 0.267*** | 0.445*** | 0.345*** | 0.276*** | 0.445*** | 0.350*** | 0.280*** | 0.475*** | 0.357*** |
| | (0.024) | (0.055) | (0.023) | (0.024) | (0.056) | (0.023) | (0.024) | (0.056) | (0.023) |
| **Log(imports)** | -0.090*** | -0.086*** | -0.083*** | -0.086*** | -0.086*** | -0.080*** | -0.080*** | -0.077*** | -0.076*** |
| | (0.005) | (0.007) | (0.005) | (0.005) | (0.007) | (0.005) | (0.005) | (0.007) | (0.005) |
| **Log(val/wgt)** | -0.451*** | -0.269*** | -0.352*** | -0.451*** | -0.271*** | -0.353*** | -0.449*** | -0.269*** | -0.352*** |
| | (0.013) | (0.016) | (0.010) | (0.013) | (0.016) | (0.010) | (0.013) | (0.016) | (0.010) |
| **ETI** | -0.078*** | 0.015 | -0.036*** | | | | | | |
| | (0.011) | (0.015) | (0.009) | | | | | | |
| **sea** | | | -1.400*** | | | -1.401*** | | | -1.406*** |
| | | | (0.021) | | | (0.020) | | | (0.020) |
| **infr** | | | | -0.030*** | 0.026*** | -0.009* | | | |
| | | | | (0.006) | (0.009) | (0.005) | | | |
| **cpi** | | | | | | | -0.027*** | 0.001 | -0.014*** |
| | | | | | | | (0.004) | (0.005) | (0.003) |
| **Constant** | -2.301*** | -3.719*** | -2.205*** | -2.686*** | -3.766*** | -2.427*** | -2.863*** | -4.132*** | -2.575*** |
| | (0.284) | (0.564) | (0.264) | (0.284) | (0.567) | (0.265) | (0.280) | (0.570) | (0.262) |
| **R-squared** | 0.212 | 0.111 | 0.306 | 0.208 | 0.109 | 0.304 | 0.210 | 0.107 | 0.304 |
| **N** | 16202 | 11337 | 27539 | 16252 | 11374 | 27626 | 16302 | 11403 | 27705 |

Notes: * p<0.1, ** p<0.05, *** p<0.01. 2008. ASEAN exports to all importers in the sample. All models estimated with product fixed effects. Robust standard errors in parentheses.

We next estimate a model which includes the full sample and control for country and product unobserved heterogeneity, scale captured by imports and bulkiness accounted for by the value to weight ratio. Table 6 reports panel fixed effects regression for the entire panel for 1990-2008. Controlling for country-pair-product fixed effects will capture any country-pair-product related characteristic – the fact that a particular country-pair-product combination will be unique. The estimating equation includes as explanatory variables the value/weight ratio of each commodity and the total exports of each country to the importing country, as well as year fixed effects. The negative and statistically significant time dummies in Table 6 indicate the declining trade costs associated on average with exports to the USA, Australia, Chile and Brazil over the period 1990-2008. In general, the year dummy coefficients are becoming more negative over time which is evidence that ad valorem trade costs on average are decreasing over time.

**Table 6: Panel Regressions,1990-2008: Dependent variable:** Log$\left(\left(cif-fob\right)/fob\right)$

| | sea | air | all |
|---|---|---|---|
| **Log(value/weight)** | -0.383*** | -0.266*** | -0.315*** |
| | (0.001) | (0.001) | (0.000) |
| **Log(imports)** | -0.057*** | -0.062*** | -0.069*** |
| | (0.000) | (0.000) | (0.000) |
| **1991** | 0.003 | 0.020*** | 0.010*** |
| | (0.003) | (0.003) | (0.002) |
| **1992** | -0.026*** | 0.016*** | -0.008*** |
| | (0.003) | (0.003) | (0.002) |
| **1993** | -0.058*** | -0.009*** | -0.033*** |
| | (0.003) | (0.003) | (0.002) |
| **1994** | -0.071*** | -0.003 | -0.036*** |
| | (0.003) | (0.003) | (0.002) |
| **1995** | -0.085*** | 0.013*** | -0.034*** |
| | (0.003) | (0.003) | (0.002) |
| **1996** | -0.147*** | -0.070*** | -0.110*** |
| | (0.003) | (0.003) | (0.002) |
| **1997** | -0.185*** | -0.075*** | -0.127*** |
| | (0.003) | (0.003) | (0.002) |
| **1998** | -0.222*** | -0.079*** | -0.146*** |
| | (0.003) | (0.003) | (0.002) |
| **1999** | -0.240*** | -0.085*** | -0.157*** |
| | (0.003) | (0.003) | (0.002) |
| **2000** | -0.222*** | -0.120*** | -0.165*** |
| | (0.003) | (0.003) | (0.002) |
| **2001** | -0.228*** | -0.122*** | -0.168*** |
| | (0.003) | (0.003) | (0.002) |
| **2002** | -0.294*** | -0.098*** | -0.189*** |
| | (0.003) | (0.003) | (0.002) |
| **2003** | -0.297*** | -0.047*** | -0.165*** |
| | (0.003) | (0.003) | (0.002) |
| **2004** | -0.250*** | -0.033*** | -0.133*** |
| | (0.003) | (0.003) | (0.002) |
| **2005** | -0.213*** | -0.023*** | -0.110*** |
| | (0.003) | (0.003) | (0.002) |
| **2006** | -0.255*** | -0.020*** | -0.129*** |
| | (0.003) | (0.003) | (0.002) |
| **2007** | -0.271*** | 0.055*** | -0.098*** |
| | (0.003) | (0.003) | (0.002) |
| **2008** | -0.242*** | 0.128*** | -0.045*** |
| | (0.003) | (0.003) | (0.002) |
| **sea** | | | -1.145*** |
| | | | (0.001) |
| **Constant** | -1.500*** | -0.910*** | -0.512*** |
| | (0.004) | (0.004) | (0.003) |
| **R-squared** | 0.036 | -0.047 | 0.226 |
| **N** | 3006474 | 3059572 | 6066046 |

Notes: Full sample 1990-2008. Country pair-product fixed effects. * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses.

## 4. An Index of Trade Costs

In this section we estimate an Index of Trade Costs based on the gap between cif and fob values of ASEAN exports to third countries. In an earlier ERIA paper we set out the case for using such an Index as a measure of trade costs, and reported results for ASEAN countries using Australian import data from 1990 to 2007.[9] The Index indicated variation in trade costs between ASEAN members as well as substantial reduction of trade costs, converging on the lowest cost trader (Singapore) and coinciding with increased attention to trade facilitation in ASEAN during the 1990s. Australia is a useful benchmark for ASEAN countries because it is a large trading partner whose major ports of entry are roughly equidistant from the ASEAN countries, but reliance on a single country as a benchmark raises a question of whether features specific to that country's trade with ASEAN countries influence the results.

The aim of the present section is to establish whether biases arise from using Australian data, and to refine the measure further. We extend the earlier Index by including Australian data for 2008, and additionally include results based on imports into the USA, Chile and Brazil. Our data spans 1990-2008 for imports arriving by both air and sea and contain more than 8 million observations. The Index, based on the total import data described earlier, is calculated by regressing ad valorem trade costs on year and commodity-country-pair dummies and weight/value. This approach allows us to control for changes in trade composition over time. We refine the measure further by performing this calculation for each importing country individually and pooled and for each ASEAN member country for air and sea freighted goods and then weight the resulting predicted values by ASEAN countries' exports. These resulting adjusted predicted ad valorem trade costs are then converted to an index where we use Singapore 2008 as the benchmark of best practice (i.e. Singapore 2008 Index = 100).

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Table A3 reproduces the Index using **Australian** data.[10] For the five founder members of ASEAN there is a clear pattern of falling trade costs over the period 1990-2008, with convergence towards the least-cost country, Singapore (Figure A2), although relative to Singapore in 2008 the Philippines exhibits a level that is significantly higher than the rest. The ranking among the ASEAN5 differs slightly by mode, with Indonesia and Philippines having the highest costs for both air and maritime transport and Malaysia jumping to first-ranked for air freight. Surprisingly, after very high and volatile levels in the 1990s, the index for Vietnam exhibits relatively low levels in 2008. Generally, air trade costs are more volatile than maritime trade costs and they have a very high level initially relative to Singapore 2008. They eventually settle down but remain significantly higher than the reference period. The Index was unable to be calculated for the newer, smaller ASEAN members, Brunei, Laos and Myanmar, which reflects the disadvantage of smaller datasets and fewer trade flows.

Table A4 reports the Index using **US** data for 1990-2008. The trade flows are largest in the US dataset and, apart from Myanmar, this is reflected in more plausible Index numbers for the other nine ASEAN countries as well as being able to calculate an index for the smaller nations. For Brunei, Cambodia and Vietnam the Index is volatile in the 1990s when trade with the USA was low, but it indicates a steady and substantial reduction in trade costs by both modes after the turn of the century when larger and more stable trade links become established.[11] For airborne freight the ASEAN5 the US-based Index gives similar results to those reported above. Singapore has the lowest trade costs, followed by Malaysia, while Indonesia has the highest trade costs and Thai and Philippine trade costs lie between those of Malaysia and Indonesia (Figure A3).

Table A5 reports the Index using **Chilean** data for 1990-2008. The results for some ASEAN members are extremely high and volatile, (e.g. costs for Indonesia in the early 90s associated with exporting by sea and air) and sometimes implausibly

[10] Table A3 is comparable to Appendix Table A2 in our earlier paper, apart from that the base is now 2008 instead of 2007 and we distinguish between air and sea because the econometric analysis reported in the previous section indicates significant differences in the size and determinants of trade costs according to the mode of transport.

[11] The only exception to this generalization is the Index of Laotian trade costs associated with airborne exports which increases sharply between 2005 and 2008.

low (e.g. the cost of exporting by sea from Thailand, Vietnam and Malaysia are more than half those of Singapore in 2008). Even for the ASEAN5 the Index exhibits larger year-on-year fluctuations than are desirable in an index of the ASEAN countries trade costs (Figure A4).

Table A6 reports the Index using **Brazilian** data for 1990-2008. For the smaller ASEAN countries (Cambodia, Laos and Myanmar) the problem of too few observations is pronounced as seen earlier. For the ASEAN5, however, the Brazil-based Index presents a similar picture to the Australia-based Index, especially after the mid-1990s when Brazil's outward-oriented economic reforms became firmly-entrenched and Brazil emerged as one of the fast-growing large economies (BRICs). For the ASEAN5 as a group the variance is much smaller in the 2000s than in the 1990s (Figure A5).

Two conclusions emerge from the above results. First, because reported cif-fob gaps on individual transactions contain much "noise" from misreporting or idiosyncratic features, the Index for an individual ASEAN country becomes more useful when based on a larger number of observations in each commodity category. The Index numbers for the five more recent members are less firmly based than those for the ASEAN5, but they are becoming more useful as trade of the smaller ASEAN countries increases and are more reliable guides post-2000 than before 2000 and for Vietnam than for Cambodia, Laos or Myanmar. Second, in selecting an appropriate importing country, there is little choice because few countries collect the required data and the trade flows of even a mid-sized trading nation such as Chile appear to be too small for our purposes.

An alternative approach to using individual importing country data is to pool the over eight million observations in our dataset.[12] Table 7a and 7b present the Index of trade costs for air and sea freight with Singapore 2008 as the base. The values indicate the falling trend of trade costs in ASEAN countries by both transport modes (apart from air freight from Cambodia and Laos), which can be seen as convergence to regional best practice, represented by Singapore. The pattern is clearest for the five original ASEAN members (Figures 4a and 5a) and for Viet Nam.

[12] An observation is the exports of goods in an HS 6-digit category from a country to one of the four reporting countries. Each observation has equal weight; more US observations enter into the Index and there are fewest Chilean observations.

For the four smaller trading ASEAN nations, the Index is more volatile (Figures 4b and 5b) and less reliable due to the smaller volume of exports for those countries.

**Table 7: Index of Trade Costs, adjusted for country and product effects and weight/value (Singapore 2008 = 100).**

**Table 7a: Import-weighted Sea Freight index**

| Year | BRN | IDN | KHM | LAO | MMR | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|---|---|---|---|
| **1990** | 2302 | 1433 | 454 | 700 | 768 | 462 | 540 | 258 | 447 | 555 |
| **1991** | 606 | 1060 | | 744 | 1443 | 381 | 504 | 212 | 447 | 1723 |
| **1992** | 60 | 864 | 517 | 476 | 666 | 347 | 471 | 233 | 401 | 483 |
| **1993** | 249 | 904 | 509 | 410 | 523 | 301 | 434 | 257 | 419 | 280 |
| **1994** | 201 | 907 | 402 | 536 | 345 | 287 | 402 | 245 | 393 | 689 |
| **1995** | 123 | 777 | 829 | 84 | 367 | 295 | 418 | 204 | 355 | 479 |
| **1996** | 232 | 692 | 537 | 350 | 462 | 289 | 400 | 174 | 332 | 924 |
| **1997** | 155 | 585 | 327 | 299 | 331 | 289 | 355 | 190 | 301 | 481 |
| **1998** | 1714 | 648 | 314 | 187 | 246 | 325 | 373 | 227 | 341 | 593 |
| **1999** | 1865 | 688 | 344 | 244 | 265 | 316 | 384 | 212 | 453 | 402 |
| **2000** | 829 | 719 | 308 | 344 | 213 | 337 | 423 | 229 | 437 | 301 |
| **2001** | 734 | 557 | 291 | 374 | 318 | 311 | 394 | 177 | 413 | 402 |
| **2002** | 367 | 527 | 261 | 368 | 287 | 271 | 377 | 177 | 381 | 320 |
| **2003** | 576 | 531 | 252 | 252 | 348 | 281 | 381 | 132 | 398 | 333 |
| **2004** | 409 | 615 | 270 | 462 | 461 | 320 | 415 | 129 | 434 | 381 |
| **2005** | 347 | 574 | 260 | 413 | 385 | 316 | 411 | 136 | 427 | 383 |
| **2006** | 320 | 506 | 256 | 264 | 389 | 285 | 367 | 108 | 385 | 327 |
| **2007** | 234 | 480 | 251 | 434 | 255 | 272 | 370 | 114 | 322 | 306 |
| **2008** | 39 | 449 | 243 | 341 | 222 | 255 | 398 | 100 | 312 | 302 |

**Table 7b: Import-weighted Air freight index**

| Year | BRN | IDN | KHM | LAO | MMR | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|---|---|---|---|
| **1990** | 143 | 444 | 439 | 180 | | 148 | 191 | 113 | 153 | 159 |
| **1991** | 266 | 498 | | 162 | | 149 | 197 | 115 | 157 | 574 |
| **1992** | 141 | 482 | 26 | 353 | | 138 | 178 | 109 | 164 | 335 |
| **1993** | 172 | 514 | 172 | 119 | | 145 | 165 | 115 | 157 | 50 |
| **1994** | 122 | 484 | 169 | 295 | | 134 | 153 | 106 | 159 | 314 |
| **1995** | 260 | 390 | 648 | 457 | 1446 | 116 | 137 | 104 | 150 | 542 |
| **1996** | 237 | 377 | 835 | 314 | 351 | 113 | 130 | 99 | 153 | 520 |
| **1997** | 252 | 322 | 325 | 185 | 139 | 112 | 125 | 94 | 156 | 291 |
| **1998** | 108 | 215 | 379 | 144 | 12 | 99 | 98 | 97 | 145 | 500 |
| **1999** | 370 | 282 | 420 | 233 | 1 | 90 | 99 | 94 | 156 | 454 |
| **2000** | 348 | 272 | 386 | 284 | 1 | 88 | 95 | 90 | 155 | 467 |
| **2001** | 435 | 241 | 320 | 325 | 36 | 101 | 99 | 88 | 155 | 531 |
| **2002** | 377 | 257 | 530 | 298 | 41 | 108 | 114 | 96 | 188 | 505 |
| **2003** | 477 | 190 | 529 | 259 | 3 | 101 | 101 | 93 | 158 | 492 |
| **2004** | 378 | 255 | 532 | 179 | 23 | 96 | 121 | 94 | 149 | 511 |
| **2005** | 408 | 256 | 540 | 48 | 28 | 97 | 119 | 88 | 149 | 462 |
| **2006** | 168 | 241 | 459 | 47 | 18 | 90 | 118 | 75 | 147 | 413 |
| **2007** | 292 | 247 | 522 | 81 | 37 | 118 | 128 | 84 | 161 | 445 |
| **2008** | 130 | 251 | 568 | 455 | 85 | 121 | 143 | 100 | 157 | 418 |

Notes: Index controls for commodity-country-pair effects (commodity composition) and weight/value. The index is weighted by the value of bilateral ASEAN exports.

**Figure 4a: Index of Trade Costs for Air Freight, adjusted for country and product effects, 1990-2008, ASEAN 5 (Singapore 2008=100)**

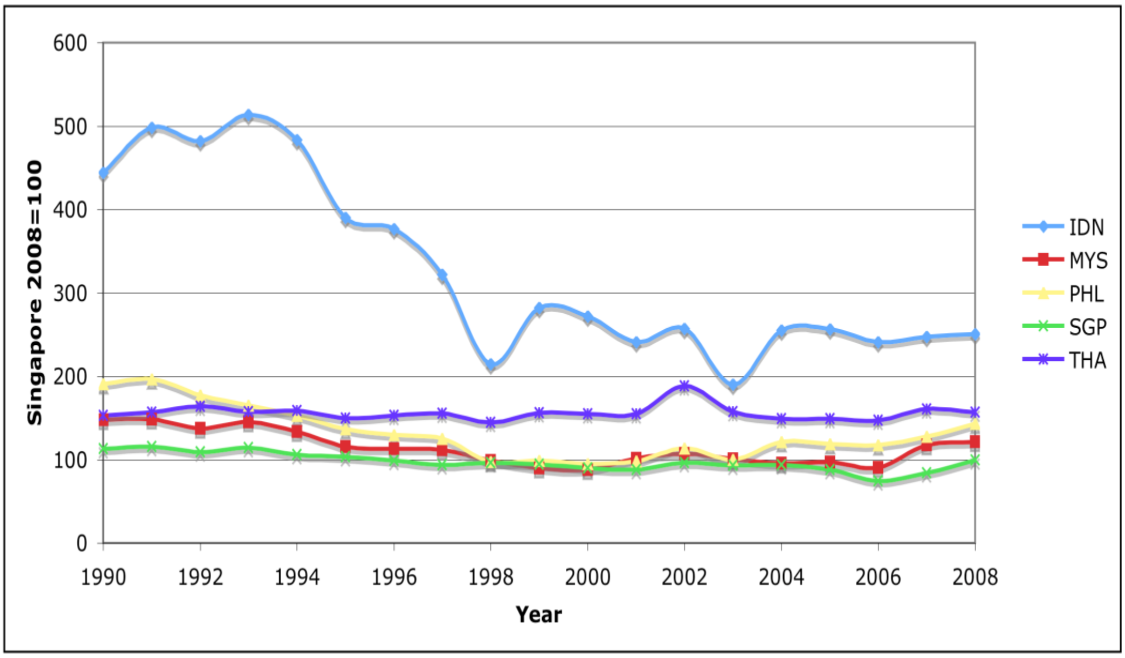



**Figure 4b: Index of Trade Costs for Air Freight, adjusted for country and product effects, 1990-2008, CLMV & Brunei (Singapore 2008=100)**

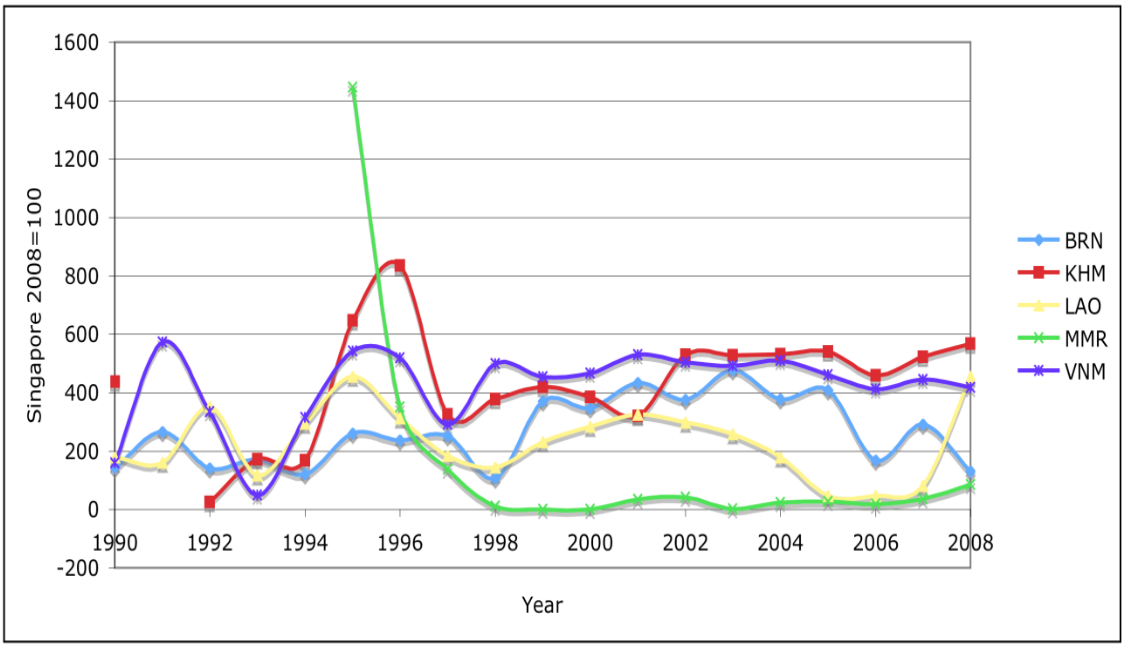


**Figure 5a: Index of Trade Costs for Sea Freight, adjusted for country and product effects, 1990-2008, ASEAN 5 (Singapore 2008=100)**

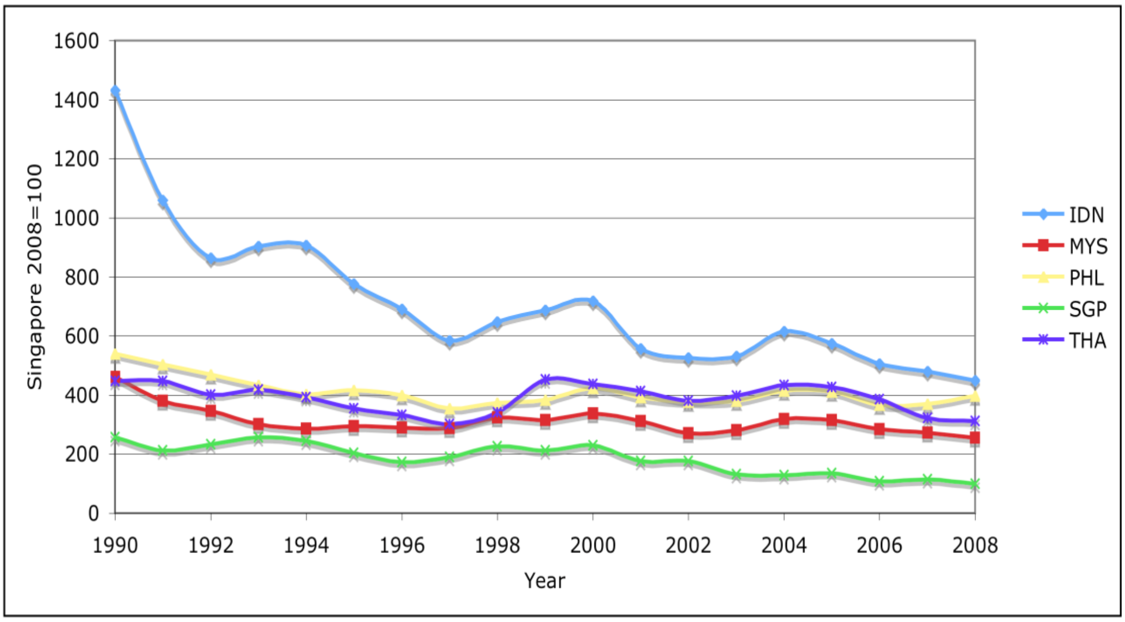
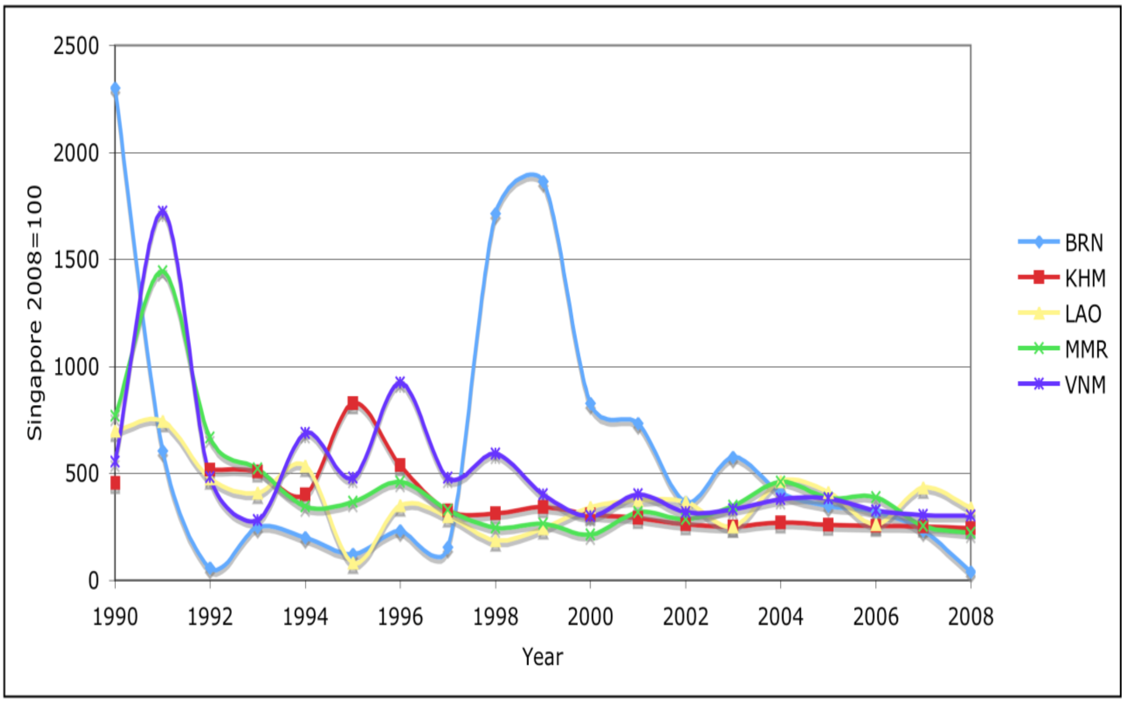



**Figure 5b: Index of Trade Costs for Sea Freight, adjusted for country and product effects, 1990-2008, CLMV & Brunei (Singapore 2008=100)**



## 5. The Scorecard Approach and the Index of Trade Costs Compared

At the January 2007 Cebu Summit ASEAN members committed to creating an AEC by 2015. The AEC was given more concrete form in November 2007 with approval of the AEC Blueprint and signing of the ASEAN Charter which enhances the legal status of the AEC. ASEAN members agreed to a Scorecard approach to checking their individual progress in meeting targets and deadlines set out in the Blueprint.

In establishing the AEC, agreements need to be concluded and ratified, institutions must be established, infrastructure put in place, and so forth. Individual member countries must be accountable for completing actions at the appropriate time, and some kind of Scorecard or account-keeping is essential. The Scorecard indicates whether governments have implemented specific measures, such as mutual recognition agreements, or ratified ASEAN decisions. Such legal or administrative decisions are critical to establish a solid foundation for the kind of integration envisaged in the AEC, and the target date of 2015 requires fairly rapid progress.

The broad categories identified in the AEC Blueprint (creating a single market, creating a competitive region, fostering equitable economic development and working towards ASEAN-centrality in external economic relations) provide a reasonable taxonomy for dividing up the Scorecard. To become operational, however, more specific measures must be identified which can checked off as they are completed. Not all measures will be equally important, and they will not be identified with equal precision, introducing some subjectivity in reporting when a measure has actually been fully implemented.

These characteristics define the strengths and weaknesses of the Scorecard approach. A Scorecard provides an essential checklist of measures completed, providing a reminder to countries that are not keeping up. At the same time, if countries become concerned about achieving good scores, there is endless opportunity for disputing the results. Any appearance of a "league table“ is likely to lead to argument especially by countries scoring below average, who can point to the measures they have achieved being the more important ones or can imply that other countries' completion of an action is superficial rather that fully realized.

An overarching problem with the Scorecard approach in the ASEAN context is that it challenges ASEAN traditions of consensus and avoidance of finger-pointing. Publishing a Scorecard, with the inevitable summaries and adding up percentage success rates for each country, is confronting for countries which score below average - as some must. A low score may be the result of very specific implementation failures, even if a country has made substantial progress in trade facilitation, while a relatively high-scoring country may retain practices that are inimical to the AEC concept, but are not on the list of measures to be implemented during the year in question. Because the definition of successful implementation is imprecise for some measures, time will be wasted arguing about the numbers, rather than addressing substantive integration issues.

The Index of Trade Costs developed in the previous sections is complementary to the Scorecard approach. The Index provides a simple indicator of trade costs, which can be used to show progress in trade facilitation and assess proximity to regional or global best practice. As a single measure, it has the political advantage over any aggregate score derived from the Scorecard in that the Index is calculated from an independent external source with little scope for manipulation by national policymakers to improve their country's standing.[13]

## 6. Policy Implications

The Index of Trade Costs developed in this paper and the Scorecard approach endorsed by ASEAN member countries are complementary. Each has a strength, which can be used in monitoring progress in creating the AEC, but neither is adequate on its own.

The Index of Trade Costs provides a scalar measure of trade costs, which over time indicates success in trade facilitation and can be used to assess proximity to regional or global best practice. It is an excellent, best of its type, simple indicator. However, as with all simple measures it must be treated with care, because the

[13] There is scope for subjectivity in selecting which trading partner to use in calculating cif-fob rations and which factors (distance, commodity composition, and so forth) to control for, but the tables suggest that such design choices will not influence the results greatly.

results vary depending on precisely how commodity composition and so forth are controlled for and on which importing country dataset is used. The econometric analysis in Section 2 indicates the need to distinguish between trade costs associated with different modes of transport, but beyond that the qualitative results about the determinants of trade costs are robust.

The Index measures reported in Section 3 highlight the need for very large datasets in order to produce trustworthy results. Pooling data from all available importing-country sources may be the best way to address this requirement, but that is data-intensive work. For ASEAN purposes our conclusion is that the Australian data are sufficiently plentiful and unbiased to provide a good foundation for an Index of Trade Costs.

The Index has the political advantage of being from an independent source. The currently usable datasets are from Australasia, Latin America and the USA and calculating the Index is a technical exercise. There is, as just mentioned, some variation depending on the choice of data and the specific technique, but the results do not change much. In sum, there is little scope for manipulation by national policymakers to improve their country's standing.

The strength of the Scorecard approach lies in revealing whether governments have implemented specific measures, such as mutual recognition agreements, or ratified ASEAN decisions. Such legal or administrative decisions are critical to establish a solid foundation for the kind of integration envisaged in the AEC, and the target date of 2015 requires fairly rapid progress.

The Scorecard approach is, however, poorly suited to providing a simple measure of progress in implementation. As it stands the four categories identified in the Blueprint, and their sub-categories, provide a reasonable list, but once these are replaced by more specific measures for implementation there is a serious problem of heterogeneity; not all measures are equally important, and some may be reported having been implemented when the action is superficial. Any attempt to synthesize the Scorecard into a single grade, such as 40/67 (or 60% or B+) will be controversial, because no country wants to be below-average. To avoid being below-average countries can focus on scoring easy points or exaggerate their progress on less concrete measures, but this undermines the whole purpose of a Scorecard as an objective indicator of actions completed.

The Scorecard should be used as a checklist of measures completed, avoiding any appearance of a "league table" and providing a reminder to countries that are not keeping up with the group. This kind of monitoring is essential as ASEAN moves towards creation of the AEC. The Scorecard is, however, not a measure of overall progress in integration. Any confusion could perhaps have been pre-empted by referring to the approach as a Checklist rather than a Scorecard.

It is desirable to have an indicator of which member country provides the benchmark of best practice in reducing trade costs, and of the extent to which other countries are converging towards best practice and of movements in the benchmark. The desire for an aggregate indicator of progress towards integration lies behind the natural instinct to summarize the Scorecard into an aggregate grade, despite the conceptual and political flaws in such aggregation. That is precisely where the Index of Trade Costs is useful. The Index provides an objective measure of progress in trade facilitation, which is a reasonable proxy for economic integration.

Future research in monitoring ASEAN progress in trade facilitation should investigate the role and policy implications of the quality of logistics services since these can be directly influenced by policy. In addition, analysis of the existence of restrictive and anti-competitive practices in the transport services sector and their impact on trade costs for maritime and air services should be an important focus.

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## APPENDIX

**Table A1: Average trade costs by importing country. Import weighted. 1990-2008.**

| | USA | | | | BRAZIL | | | | AUSTRALIA | | | | CHILE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **YEAR** | **ALL** | **ASEAN** | **AIR** | **SEA** | **ALL** | **ASEAN** | **AIR** | **SEA** | **ALL** | **ASEAN** | **AIR** | **SEA** | **ALL** | **ASEAN** | **AIR** | **SEA** |
| **1990** | 0.05 | 0.05 | 0.04 | 0.053 | 0.087 | 0.181 | 0.068 | 0.1 | 0.08 | 0.085 | 0.066 | 0.086 | 0.093 | 0.142 | 0.087 | 0.096 |
| **1991** | 0.049 | 0.048 | 0.039 | 0.052 | 0.092 | 0.158 | 0.071 | 0.105 | 0.076 | 0.079 | 0.058 | 0.084 | 0.101 | 0.098 | 0.089 | 0.107 |
| **1992** | 0.045 | 0.045 | 0.037 | 0.048 | 0.084 | 0.149 | 0.064 | 0.097 | 0.075 | 0.073 | 0.062 | 0.08 | 0.096 | 0.105 | 0.083 | 0.101 |
| **1993** | 0.045 | 0.042 | 0.036 | 0.049 | 0.081 | 0.086 | 0.073 | 0.089 | 0.073 | 0.071 | 0.061 | 0.077 | 0.093 | 0.1 | 0.08 | 0.096 |
| **1994** | 0.045 | 0.04 | 0.034 | 0.049 | 0.074 | 0.111 | 0.074 | 0.079 | 0.07 | 0.066 | 0.058 | 0.075 | 0.088 | 0.104 | 0.083 | 0.091 |
| **1995** | 0.044 | 0.036 | 0.032 | 0.05 | 0.083 | 0.081 | 0.104 | 0.082 | 0.067 | 0.058 | 0.056 | 0.072 | 0.086 | 0.106 | 0.082 | 0.089 |
| **1996** | 0.04 | 0.033 | 0.029 | 0.045 | 0.065 | 0.074 | 0.069 | 0.066 | 0.066 | 0.055 | 0.053 | 0.071 | 0.081 | 0.108 | 0.082 | 0.082 |
| **1997** | 0.039 | 0.032 | 0.029 | 0.045 | 0.061 | 0.069 | 0.067 | 0.063 | 0.066 | 0.057 | 0.054 | 0.071 | 0.08 | 0.101 | 0.081 | 0.081 |
| **1998** | 0.042 | 0.034 | 0.028 | 0.049 | 0.059 | 0.075 | 0.059 | 0.062 | 0.064 | 0.057 | 0.047 | 0.072 | 0.083 | 0.126 | 0.072 | 0.084 |
| **1999** | 0.043 | 0.042 | 0.028 | 0.052 | 0.054 | 0.074 | 0.056 | 0.055 | 0.056 | 0.049 | 0.041 | 0.063 | 0.084 | 0.128 | 0.067 | 0.084 |
| **2000** | 0.043 | 0.043 | 0.027 | 0.053 | 0.055 | 0.073 | 0.053 | 0.057 | 0.057 | 0.055 | 0.04 | 0.064 | 0.081 | 0.135 | 0.065 | 0.083 |
| **2001** | 0.043 | 0.044 | 0.025 | 0.052 | 0.057 | 0.067 | 0.052 | 0.059 | 0.057 | 0.06 | 0.04 | 0.064 | 0.085 | 0.13 | 0.065 | 0.085 |
| **2002** | 0.042 | 0.044 | 0.029 | 0.049 | 0.053 | 0.059 | 0.055 | 0.052 | 0.051 | 0.046 | 0.038 | 0.056 | 0.082 | 0.136 | 0.065 | 0.08 |
| **2003** | 0.046 | 0.045 | 0.028 | 0.055 | 0.053 | 0.045 | 0.056 | 0.051 | 0.051 | 0.052 | 0.037 | 0.057 | 0.078 | 0.108 | 0.066 | 0.074 |
| **2004** | 0.048 | 0.047 | 0.029 | 0.056 | 0.058 | 0.062 | 0.058 | 0.057 | 0.055 | 0.06 | 0.04 | 0.062 | 0.082 | 0.136 | 0.065 | 0.084 |
| **2005** | 0.046 | 0.046 | 0.028 | 0.054 | 0.055 | 0.056 | 0.054 | 0.055 | 0.055 | 0.054 | 0.039 | 0.061 | 0.075 | 0.16 | 0.064 | 0.075 |
| **2006** | 0.043 | 0.044 | 0.026 | 0.049 | 0.049 | 0.048 | 0.055 | 0.047 | 0.051 | 0.047 | 0.037 | 0.057 | 0.071 | 0.122 | 0.063 | 0.068 |
| **2007** | 0.04 | 0.042 | 0.026 | 0.046 | 0.05 | 0.052 | 0.059 | 0.048 | 0.049 | 0.043 | 0.036 | 0.054 | 0.073 | 0.129 | 0.066 | 0.072 |
| **2008** | 0.038 | 0.043 | 0.026 | 0.043 | 0.053 | 0.054 | 0.065 | 0.051 | 0.049 | 0.042 | 0.036 | 0.053 | 0.078 | 0.135 | 0.087 | 0.076 |

**Figure A1a: Average trade costs, US imports, 1990-2008**

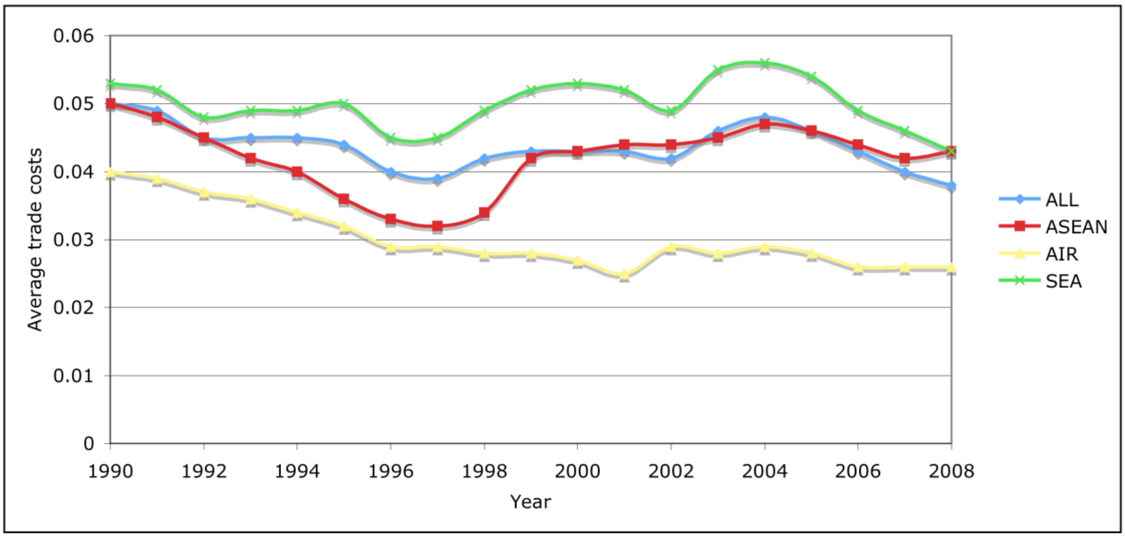



**Figure A1b: Average trade costs, Brazil imports, 1990-2008.**

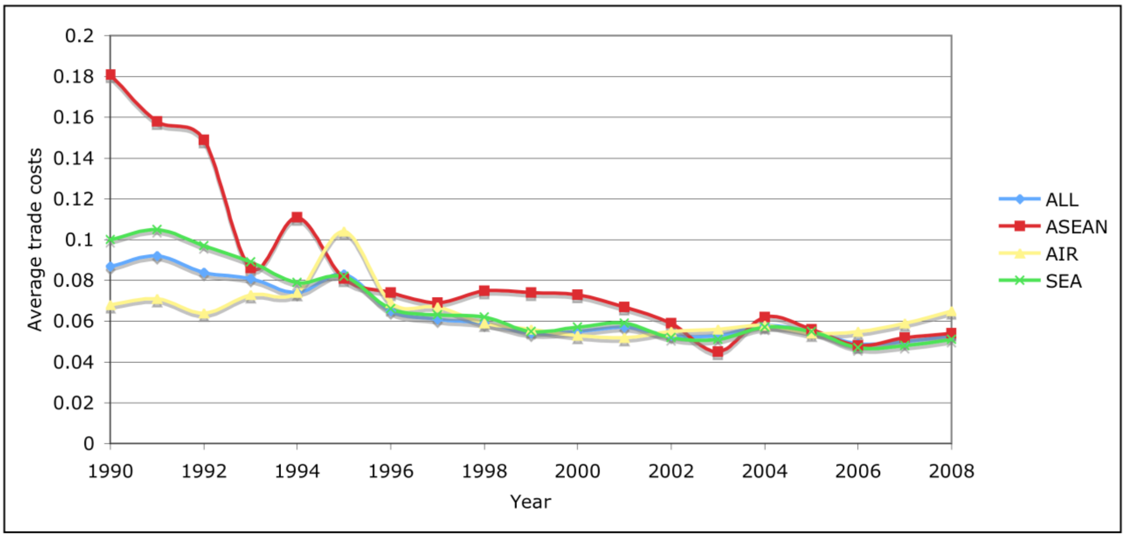


**Figure A1c: Average trade costs, Australian imports, 1990-2008**

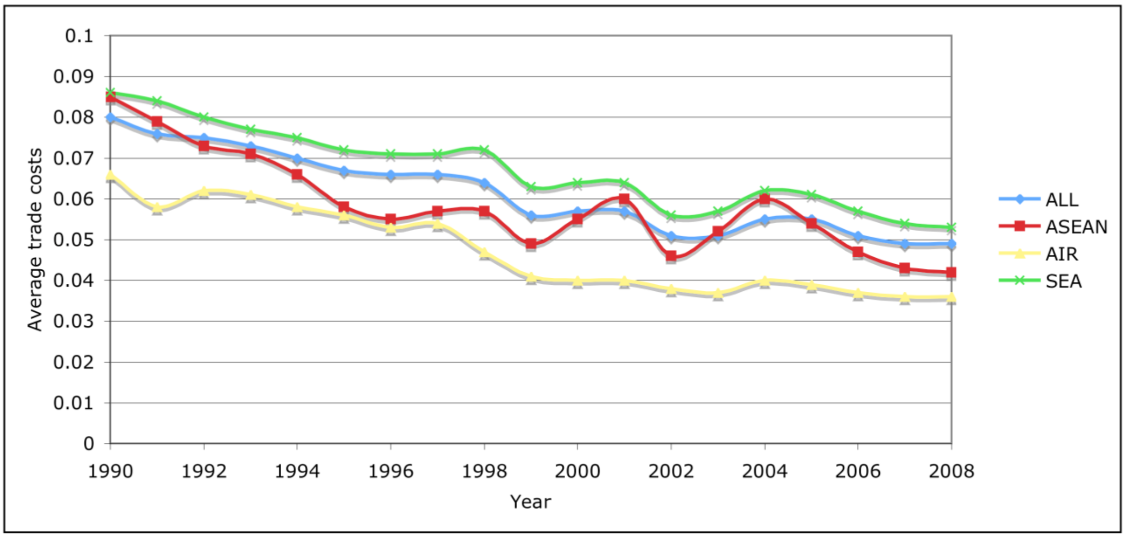
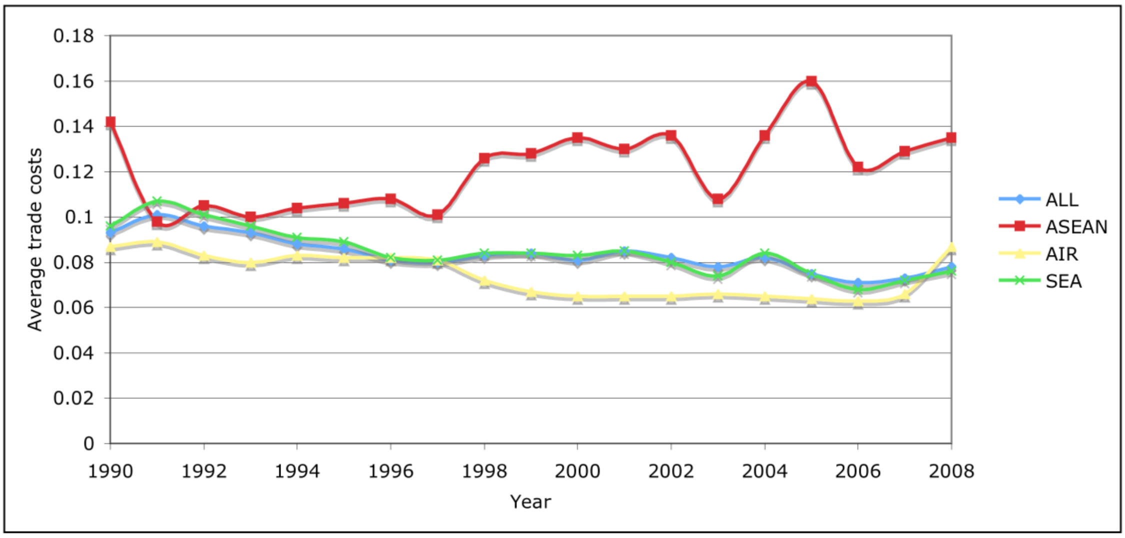



**Figure A1d: Average trade costs, Chilean imports, 1990-2008**



## Table A2: Average ad valorem Trade Costs; Selected Asian Economies, 1990-2008

| Exporter | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AFG** | 0.068 | 0.029 | 0.053 | 0.072 | 0.043 | 0.059 | 0.086 | 0.132 | 0.059 | 0.114 | 0.244 | 0.080 | 0.207 | 0.118 | 0.010 | 0.005 | 0.014 | 0.030 | 0.029 |
| **BGD** | 0.104 | 0.095 | 0.085 | 0.077 | 0.076 | 0.072 | 0.060 | 0.062 | 0.056 | 0.072 | 0.077 | 0.063 | 0.072 | 0.069 | 0.072 | 0.072 | 0.070 | 0.059 | 0.064 |
| **BRN** | 0.072 | 0.073 | 0.056 | 0.056 | 0.036 | 0.045 | 0.042 | 0.040 | 0.063 | 0.069 | 0.062 | 0.072 | 0.058 | 0.061 | 0.070 | 0.047 | 0.043 | 0.035 | 0.036 |
| **BTN** | 0.050 | 0.173 | 0.053 | 0.080 | 0.185 | 0.118 | 0.106 | 0.046 | 0.077 | 0.085 | 0.079 | 0.095 | 0.153 | 0.038 | 0.060 | 0.085 | 0.039 | 0.030 | 0.101 |
| **CHN** | 0.074 | 0.073 | 0.070 | 0.071 | 0.069 | 0.067 | 0.059 | 0.055 | 0.058 | 0.074 | 0.076 | 0.071 | 0.067 | 0.072 | 0.072 | 0.069 | 0.064 | 0.061 | 0.058 |
| **HKG** | 0.051 | 0.051 | 0.050 | 0.049 | 0.050 | 0.050 | 0.044 | 0.042 | 0.042 | 0.047 | 0.048 | 0.046 | 0.049 | 0.051 | 0.053 | 0.049 | 0.045 | 0.046 | 0.044 |
| **IDN** | 0.102 | 0.102 | 0.085 | 0.083 | 0.079 | 0.073 | 0.067 | 0.066 | 0.070 | 0.081 | 0.082 | 0.080 | 0.074 | 0.074 | 0.081 | 0.079 | 0.069 | 0.064 | 0.059 |
| **IND** | 0.075 | 0.076 | 0.078 | 0.076 | 0.071 | 0.065 | 0.061 | 0.057 | 0.056 | 0.057 | 0.060 | 0.060 | 0.056 | 0.057 | 0.058 | 0.058 | 0.055 | 0.047 | 0.049 |
| **IRN** | 0.091 | 0.132 | 0.117 | 0.141 | 0.085 | 0.083 | 0.069 | 0.059 | 0.074 | 0.068 | 0.042 | 0.045 | 0.046 | 0.049 | 0.037 | 0.036 | 0.047 | 0.038 | 0.054 |
| **IRQ** | 0.094 | 0.105 | | 0.514 | 0.018 | | 0.228 | 0.109 | 0.134 | 0.076 | 0.066 | 0.086 | 0.055 | 0.071 | 0.079 | 0.066 | 0.056 | 0.042 | 0.045 |
| **ISR** | 0.030 | 0.029 | 0.027 | 0.026 | 0.026 | 0.024 | 0.022 | 0.022 | 0.021 | 0.020 | 0.021 | 0.018 | 0.019 | 0.022 | 0.023 | 0.019 | 0.017 | 0.017 | 0.018 |
| **JOR** | 0.101 | 0.132 | 0.088 | 0.145 | 0.164 | 0.174 | 0.125 | 0.232 | 0.250 | 0.060 | 0.072 | 0.057 | 0.062 | 0.047 | 0.048 | 0.043 | 0.048 | 0.041 | 0.041 |
| **JPN** | 0.042 | 0.042 | 0.036 | 0.034 | 0.032 | 0.033 | 0.027 | 0.028 | 0.030 | 0.030 | 0.031 | 0.028 | 0.029 | 0.030 | 0.032 | 0.031 | 0.031 | 0.031 | 0.034 |
| **KAZ** | | | 0.146 | 0.068 | 0.122 | 0.047 | 0.055 | 0.023 | 0.057 | 0.051 | 0.043 | 0.038 | 0.042 | 0.044 | 0.057 | 0.059 | 0.042 | 0.033 | 0.030 |
| **KGZ** | | | 0.059 | 0.065 | 0.032 | 0.023 | 0.020 | 0.034 | 0.064 | 0.141 | 0.090 | 0.045 | 0.135 | 0.066 | 0.060 | 0.149 | 0.079 | 0.082 | 0.061 |
| **KHM** | 0.176 | 0.013 | 0.029 | 0.096 | 0.067 | 0.077 | 0.064 | 0.066 | 0.062 | 0.072 | 0.066 | 0.057 | 0.070 | 0.058 | 0.063 | 0.061 | 0.064 | 0.055 | 0.056 |
| **KOR** | 0.045 | 0.045 | 0.043 | 0.043 | 0.041 | 0.035 | 0.034 | 0.035 | 0.042 | 0.043 | 0.039 | 0.041 | 0.040 | 0.040 | 0.039 | 0.043 | 0.043 | 0.042 | 0.043 |
| **LAO** | 0.104 | 0.033 | 0.075 | 0.065 | 0.074 | 0.080 | 0.073 | 0.057 | 0.051 | 0.053 | 0.076 | 0.066 | 0.060 | 0.072 | 0.088 | 0.033 | 0.029 | 0.051 | 0.048 |
| **LBN** | 0.042 | 0.052 | 0.054 | 0.061 | 0.069 | 0.055 | 0.050 | 0.045 | 0.035 | 0.056 | 0.047 | 0.042 | 0.083 | 0.052 | 0.079 | 0.071 | 0.070 | 0.060 | 0.045 |
| **LKA** | 0.083 | 0.085 | 0.089 | 0.077 | 0.075 | 0.068 | 0.062 | 0.058 | 0.053 | 0.067 | 0.072 | 0.059 | 0.063 | 0.066 | 0.064 | 0.065 | 0.065 | 0.056 | 0.057 |
| **MAC** | 0.057 | 0.058 | 0.051 | 0.052 | 0.052 | 0.051 | 0.046 | 0.043 | 0.039 | 0.050 | 0.052 | 0.047 | 0.062 | 0.055 | 0.059 | 0.057 | 0.050 | 0.045 | 0.045 |
| **MDV** | 0.072 | 0.059 | 0.070 | 0.082 | 0.089 | 0.073 | 0.082 | 0.090 | 0.112 | 0.056 | 0.065 | 0.054 | 0.069 | 0.038 | 0.047 | 0.048 | 0.420 | 0.613 | 0.115 |
| **MMR** | 0.049 | 0.084 | 0.046 | 0.042 | 0.046 | 0.048 | 0.053 | 0.057 | 0.058 | 0.061 | 0.051 | 0.043 | 0.044 | 0.043 | 0.048 | 0.054 | 0.045 | 0.045 | 0.050 |
| **MNG** | 0.059 | 0.061 | 0.057 | 0.089 | 0.096 | 0.073 | 0.078 | 0.068 | 0.072 | 0.102 | 0.083 | 0.063 | 0.063 | 0.062 | 0.057 | 0.063 | 0.063 | 0.053 | 0.046 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MYS** | 0.050 | 0.047 | 0.041 | 0.038 | 0.035 | 0.032 | 0.031 | 0.031 | 0.031 | 0.033 | 0.035 | 0.036 | 0.032 | 0.032 | 0.035 | 0.032 | 0.030 | 0.031 | 0.032 |
| **NPL** | 0.205 | 0.208 | 0.225 | 0.213 | 0.176 | 0.134 | 0.121 | 0.115 | 0.105 | 0.098 | 0.106 | 0.091 | 0.090 | 0.090 | 0.097 | 0.088 | 0.090 | 0.087 | 0.091 |
| **PAK** | 0.078 | 0.077 | 0.078 | 0.078 | 0.072 | 0.067 | 0.065 | 0.059 | 0.058 | 0.075 | 0.080 | 0.076 | 0.077 | 0.080 | 0.076 | 0.075 | 0.079 | 0.071 | 0.067 |
| **PHL** | 0.074 | 0.071 | 0.063 | 0.059 | 0.055 | 0.052 | 0.042 | 0.036 | 0.033 | 0.038 | 0.039 | 0.040 | 0.041 | 0.043 | 0.049 | 0.050 | 0.047 | 0.045 | 0.047 |
| **PNG** | 0.017 | 0.009 | 0.013 | 0.027 | 0.033 | 0.032 | 0.033 | 0.035 | 0.041 | 0.036 | 0.025 | 0.034 | 0.022 | 0.019 | 0.018 | 0.018 | 0.020 | 0.015 | 0.013 |
| **PRK** | 0.097 | 0.100 | 0.098 | 0.090 | 0.225 | 0.149 | 0.084 | 0.086 | 0.104 | 0.097 | 0.073 | 0.080 | 0.070 | 0.066 | 0.053 | 0.077 | 0.070 | 0.067 | 0.069 |
| **RUS** | | | 0.086 | 0.066 | 0.067 | 0.064 | 0.057 | 0.060 | 0.051 | 0.040 | 0.034 | 0.046 | 0.050 | 0.059 | 0.066 | 0.061 | 0.051 | 0.048 | 0.046 |
| **SGP** | 0.030 | 0.028 | 0.025 | 0.023 | 0.023 | 0.021 | 0.017 | 0.018 | 0.019 | 0.022 | 0.022 | 0.023 | 0.024 | 0.027 | 0.027 | 0.028 | 0.026 | 0.026 | 0.028 |
| **SYR** | 0.097 | 0.097 | 0.093 | 0.116 | 0.122 | 0.172 | 0.082 | 0.084 | 0.060 | 0.066 | 0.075 | 0.056 | 0.082 | 0.091 | 0.110 | 0.088 | 0.074 | 0.078 | 0.064 |
| **THA** | 0.059 | 0.057 | 0.055 | 0.054 | 0.050 | 0.046 | 0.043 | 0.039 | 0.043 | 0.059 | 0.062 | 0.059 | 0.061 | 0.061 | 0.062 | 0.059 | 0.055 | 0.047 | 0.047 |
| **TJK** | | | 0.054 | 0.053 | 0.040 | 0.033 | 0.052 | 0.026 | 0.019 | 0.039 | 0.064 | 0.059 | 0.117 | 0.053 | 0.037 | 0.033 | 0.024 | 0.056 | 0.023 |
| **TUR** | 0.081 | 0.074 | 0.070 | 0.074 | 0.078 | 0.073 | 0.062 | 0.063 | 0.055 | 0.053 | 0.067 | 0.068 | 0.071 | 0.073 | 0.079 | 0.080 | 0.077 | 0.065 | 0.069 |
| **TWN** | 0.054 | 0.054 | 0.051 | 0.050 | 0.048 | 0.044 | 0.040 | 0.037 | 0.040 | 0.047 | 0.045 | 0.044 | 0.042 | 0.046 | 0.048 | 0.047 | 0.044 | 0.043 | 0.043 |
| **UZB** | | | 0.007 | 0.071 | 0.039 | 0.031 | 0.045 | 0.048 | 0.040 | 0.057 | 0.073 | 0.058 | 0.056 | 0.047 | 0.022 | 0.020 | 0.012 | 0.005 | 0.004 |
| **VNM** | 0.072 | 0.127 | 0.085 | 0.076 | 0.087 | 0.067 | 0.077 | 0.073 | 0.079 | 0.065 | 0.069 | 0.084 | 0.071 | 0.077 | 0.084 | 0.080 | 0.072 | 0.067 | 0.066 |

Notes: Average trade costs for all four importers by exporting partner; import weighted.

**Table A3: Index of Trade Costs. Australian imports (Singapore 2008=100).**

**Table A3a: Sea freight**

| year | IDN | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|
| **1990** | 878 | 844 | 1194 | 411 | 1366 | 2855 |
| **1991** | 635 | 727 | 1055 | 308 | 1377 | 2090 |
| **1992** | 559 | 756 | 883 | 364 | 1024 | 586 |
| **1993** | 696 | 933 | 903 | 356 | 1127 | 383 |
| **1994** | 796 | 795 | 827 | 322 | 1061 | 600 |
| **1995** | 642 | 689 | 683 | 261 | 921 | 577 |
| **1996** | 561 | 635 | 847 | 205 | 790 | 283 |
| **1997** | 595 | 587 | 633 | 267 | 748 | 323 |
| **1998** | 675 | 552 | 736 | 340 | 760 | 282 |
| **1999** | 642 | 424 | 590 | 291 | 572 | 181 |
| **2000** | 659 | 372 | 653 | 299 | 526 | 138 |
| **2001** | 449 | 420 | 472 | 226 | 560 | 120 |
| **2002** | 385 | 394 | 453 | 201 | 415 | 116 |
| **2003** | 479 | 354 | 307 | 180 | 449 | 160 |
| **2004** | 551 | 356 | 393 | 196 | 572 | 241 |
| **2005** | 400 | 368 | 501 | 175 | 452 | 190 |
| **2006** | 345 | 301 | 372 | 128 | 298 | 114 |
| **2007** | 337 | 291 | 554 | 133 | 262 | 126 |
| **2008** | 339 | 257 | 668 | 100 | 316 | 137 |

**Table A3b: Air freight**

| year | IDN | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|
| **1990** | 2846 | 2335 | 688 | 884 | 484 | 2155 |
| **1991** | 2109 | 1830 | 3059 | 859 | 367 | 16230 |
| **1992** | 1329 | 693 | 1482 | 841 | 546 | 10498 |
| **1993** | 1732 | 739 | 1857 | 628 | 1259 | 1333 |
| **1994** | 1893 | 962 | 846 | 443 | 742 | 3577 |
| **1995** | 2170 | 871 | 1178 | 316 | 744 | 10563 |
| **1996** | 1064 | 889 | 601 | 448 | 679 | 4037 |
| **1997** | 842 | 292 | 629 | 380 | 797 | 3339 |
| **1998** | 91 | 174 | 292 | 267 | 986 | 3199 |
| **1999** | 238 | 78 | 252 | 156 | 646 | 952 |
| **2000** | 391 | 102 | 223 | 190 | 621 | 615 |
| **2001** | 111 | 142 | 163 | 141 | 578 | 478 |
| **2002** | 101 | 144 | 106 | 226 | 447 | 363 |
| **2003** | 46 | 109 | 134 | 250 | 420 | 302 |
| **2004** | 186 | 75 | 90 | 258 | 562 | 211 |
| **2005** | 595 | 58 | 112 | 132 | 424 | 198 |
| **2006** | 225 | 55 | 308 | 96 | 228 | 199 |
| **2007** | 343 | 82 | 502 | 121 | 205 | 263 |
| **2008** | 335 | 78 | 761 | 100 | 164 | 108 |

Notes: include exporter-product effects, value/weight.

**Figure A2a: Index of Trade Costs, Sea, ASEAN5 (Australian imports; Singapore 2008=100)**

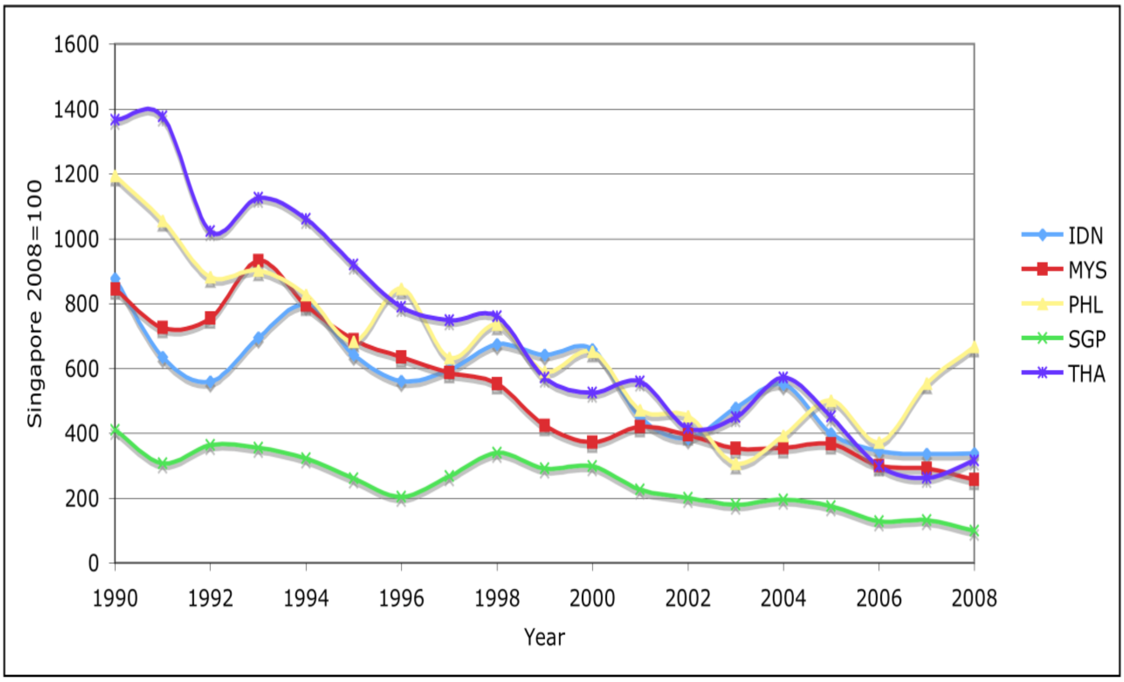



**Figure A2b: Index of Trade Costs, Air, ASEAN5 (Australian imports; Singapore 2008=100)**

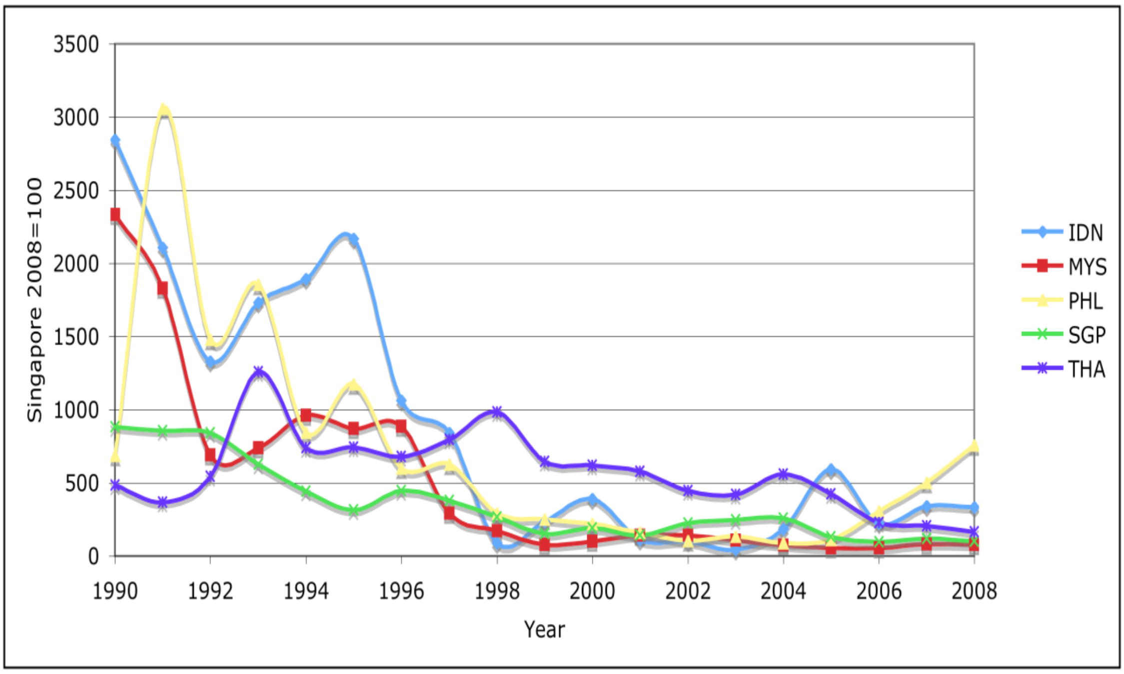


**Table A4: Index of Trade Costs. USA imports (Singapore 2008=100).**

**Table A4a: Sea freight**

| year | BRN | IDN | KHM | LAO | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|---|---|---|
| **1990** | 2545 | 672 | n/a | 403 | 301 | 306 | 162 | 261 | n/a |
| **1991** | 1521 | 520 | n/a | 469 | 223 | 290 | 122 | 247 | n/a |
| **1992** | 165 | 428 | 826 | 347 | 195 | 277 | 130 | 229 | 79 |
| **1993** | 320 | 416 | 441 | 292 | 173 | 249 | 141 | 232 | n/a |
| **1994** | 122 | 416 | 487 | 328 | 164 | 233 | 145 | 215 | 978 |
| **1995** | 111 | 354 | 610 | 47 | 167 | 246 | 127 | 200 | 552 |
| **1996** | 136 | 310 | 292 | 211 | 156 | 221 | 105 | 182 | 904 |
| **1997** | 96 | 267 | 221 | 218 | 168 | 198 | 117 | 161 | 592 |
| **1998** | 1424 | 304 | 199 | 138 | 198 | 205 | 137 | 191 | 823 |
| **1999** | 1732 | 360 | 229 | 166 | 228 | 235 | 159 | 288 | 740 |
| **2000** | 927 | 354 | 199 | 239 | 258 | 256 | 190 | 292 | 547 |
| **2001** | 824 | 300 | 191 | 291 | 228 | 242 | 139 | 252 | 627 |
| **2002** | 647 | 307 | 174 | 260 | 194 | 241 | 147 | 246 | 348 |
| **2003** | 848 | 333 | 171 | 188 | 227 | 255 | 120 | 277 | 310 |
| **2004** | 703 | 336 | 180 | 309 | 266 | 266 | 122 | 287 | 325 |
| **2005** | 512 | 312 | 172 | 279 | 257 | 259 | 150 | 283 | 333 |
| **2006** | 610 | 277 | 169 | 220 | 235 | 228 | 135 | 273 | 302 |
| **2007** | 591 | 254 | 168 | 271 | 229 | 223 | 139 | 238 | 252 |
| **2008** | 284 | 240 | 153 | 222 | 219 | 231 | 100 | 224 | 238 |

**Table A4b: Air freight**

| year | BRN | IDN | KHM | LAO | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|---|---|---|
| **1990** | 153 | 496 | 557 | 233 | 158 | 219 | 108 | 170 | n/a |
| **1991** | 276 | 463 | n/a | 182 | 157 | 214 | 120 | 171 | n/a |
| **1992** | 137 | 483 | 44 | 421 | 147 | 198 | 110 | 181 | n/a |
| **1993** | 205 | 479 | 146 | 147 | 153 | 180 | 110 | 166 | n/a |
| **1994** | 139 | 451 | 142 | 312 | 134 | 169 | 105 | 168 | 759 |
| **1995** | 294 | 371 | 296 | 587 | 121 | 151 | 101 | 156 | 893 |
| **1996** | 253 | 355 | 1079 | 391 | 116 | 146 | 94 | 150 | 684 |
| **1997** | 284 | 339 | 373 | 217 | 116 | 132 | 85 | 153 | 448 |
| **1998** | 116 | 312 | 450 | 181 | 99 | 102 | 82 | 140 | 727 |
| **1999** | 422 | 332 | 491 | 290 | 97 | 104 | 93 | 171 | 714 |
| **2000** | 415 | 290 | 456 | 390 | 96 | 101 | 91 | 167 | 779 |
| **2001** | 483 | 289 | 380 | 410 | 108 | 111 | 93 | 161 | 812 |
| **2002** | 426 | 328 | 613 | 313 | 119 | 128 | 92 | 208 | 688 |
| **2003** | 575 | 306 | 577 | 354 | 107 | 112 | 92 | 172 | 628 |
| **2004** | 428 | 294 | 605 | 253 | 102 | 132 | 87 | 158 | 605 |
| **2005** | 436 | 268 | 620 | 204 | 105 | 121 | 88 | 155 | 525 |
| **2006** | 327 | 282 | 523 | 417 | 90 | 123 | 74 | 153 | 482 |
| **2007** | 344 | 265 | 568 | 346 | 122 | 138 | 83 | 167 | 529 |
| **2008** | 165 | 269 | 586 | 704 | 118 | 150 | 100 | 162 | 489 |

**Figure A3a: Index of Trade Costs, Sea, ASEAN5 (USA imports; Singapore 2008=100)**

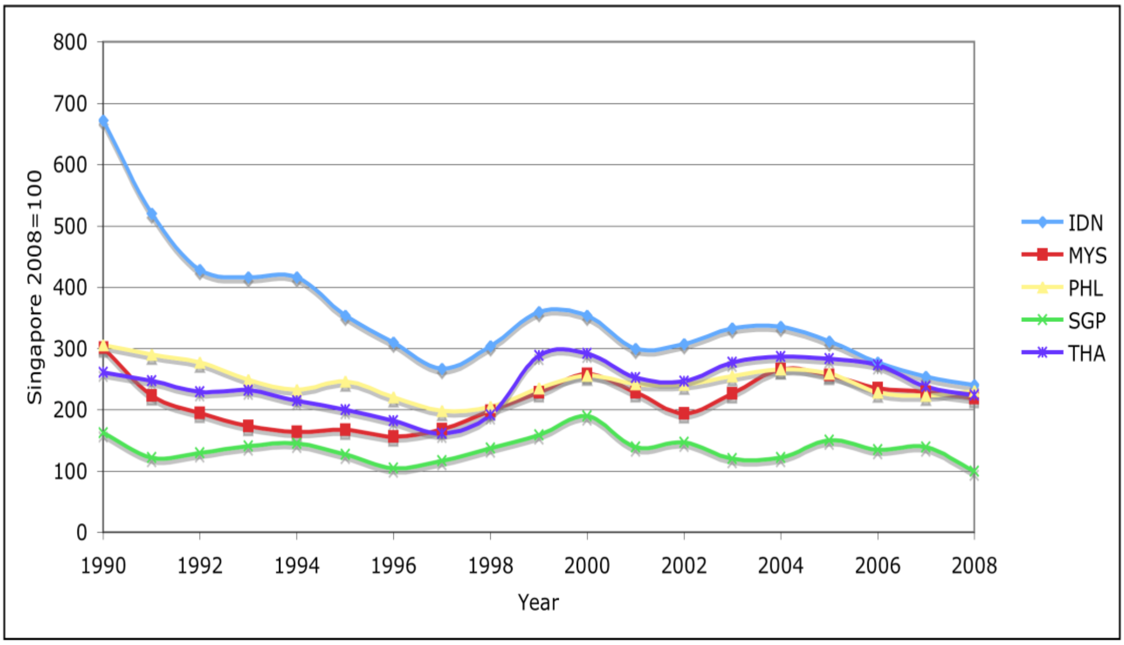



**Figure A3b: Index of Trade Costs, Air, ASEAN5 (USA imports; Singapore 2008=100)**

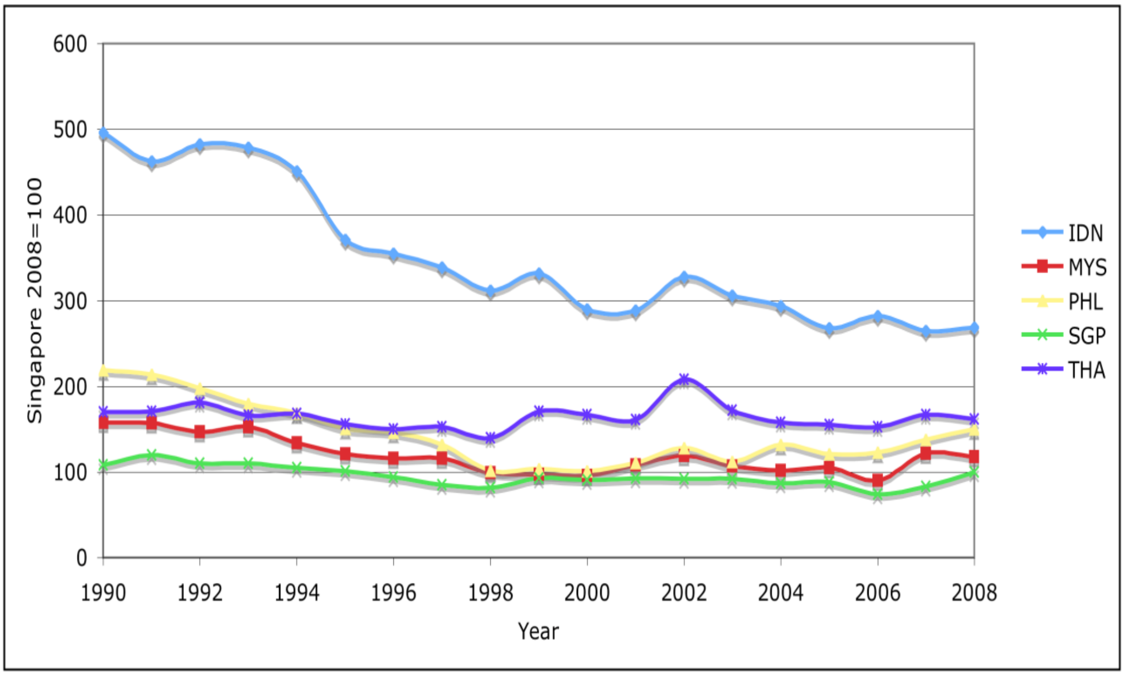


**Table A5: Index of Trade Costs. Chilean imports (Singapore 2008=100).**

**Table A5a: Sea freight**

| year | IDN | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|
| **1990** | 1036 | 191 | 157 | 107 | 195 | 63 |
| **1991** | 454 | 303 | 153 | 81 | 236 | 12 |
| **1992** | 313 | 317 | 138 | 70 | 136 | 80 |
| **1993** | 197 | 97 | 136 | 76 | 108 | 427 |
| **1994** | 224 | 94 | 123 | 118 | 118 | 350 |
| **1995** | 434 | 95 | 108 | 65 | 102 | 123 |
| **1996** | 387 | 76 | 84 | 60 | 90 | 236 |
| **1997** | 364 | 69 | 70 | 55 | 87 | 245 |
| **1998** | 428 | 135 | 95 | 103 | 114 | 136 |
| **1999** | 621 | 36 | 47 | 44 | 125 | 74 |
| **2000** | 1103 | 46 | 60 | 13 | 74 | 16 |
| **2001** | 364 | 23 | 45 | 17 | 92 | 21 |
| **2002** | 405 | 117 | 91 | 42 | 109 | 28 |
| **2003** | 212 | 76 | 55 | 37 | 119 | 25 |
| **2004** | 325 | 30 | 78 | 27 | 95 | 36 |
| **2005** | 453 | 94 | 69 | 56 | 71 | 60 |
| **2006** | 427 | 68 | 43 | 43 | 80 | 51 |
| **2007** | 431 | 38 | 166 | 133 | 64 | 47 |
| **2008** | 248 | 42 | 191 | 100 | 33 | 25 |

**Table A5b: Air freight**

| year | IDN | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|
| **1990** | 919 | 478 | 337 | 228 | 385 | 530 |
| **1991** | 891 | 410 | 2213 | 290 | 538 | 687 |
| **1992** | 897 | 453 | 1295 | 216 | 509 | n/a |
| **1993** | 997 | 436 | 666 | 332 | 272 | 200 |
| **1994** | 809 | 436 | 507 | 285 | 477 | 118 |
| **1995** | 865 | 220 | 422 | 265 | 430 | 66 |
| **1996** | 801 | 552 | 256 | 345 | 366 | 823 |
| **1997** | 637 | 273 | 227 | 240 | 422 | 578 |
| **1998** | 1023 | 323 | 308 | 203 | 435 | 399 |
| **1999** | 280 | 96 | 237 | 174 | 255 | 531 |
| **2000** | 444 | 27 | 12 | 23 | 312 | 82 |
| **2001** | 420 | 33 | 24 | 15 | 200 | 274 |
| **2002** | 221 | 32 | 44 | 32 | 144 | 86 |
| **2003** | 210 | 19 | 40 | 40 | 241 | 48 |
| **2004** | 13938 | 9 | 49 | 121 | 175 | 39 |
| **2005** | 118 | 11 | 116 | 42 | 128 | 148 |
| **2006** | 143 | 12 | 26 | 38 | 92 | 42 |
| **2007** | 127 | 11 | 38 | 93 | 148 | 233 |
| **2008** | 275 | 19 | 66 | 100 | 195 | 137 |

**Figure A4a: Index of Trade Costs, Sea, ASEAN5 (Chilean imports; Singapore 2008=100)**

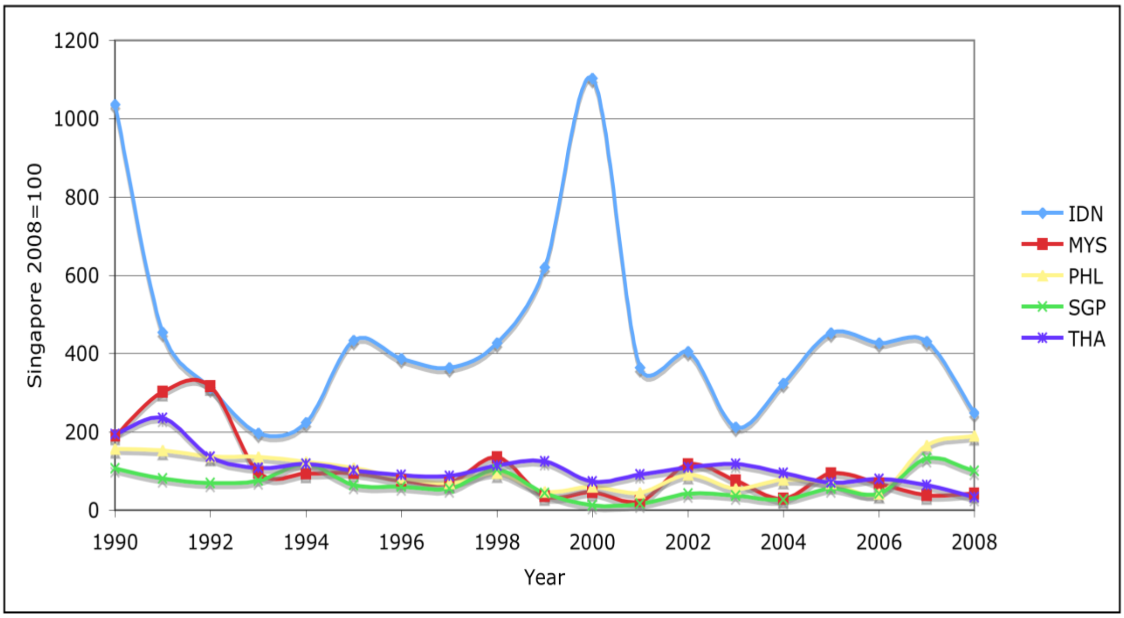



**Figure A4b: Index of Trade Costs, Air, ASEAN5 (Chilean imports; Singapore 2008=100)**

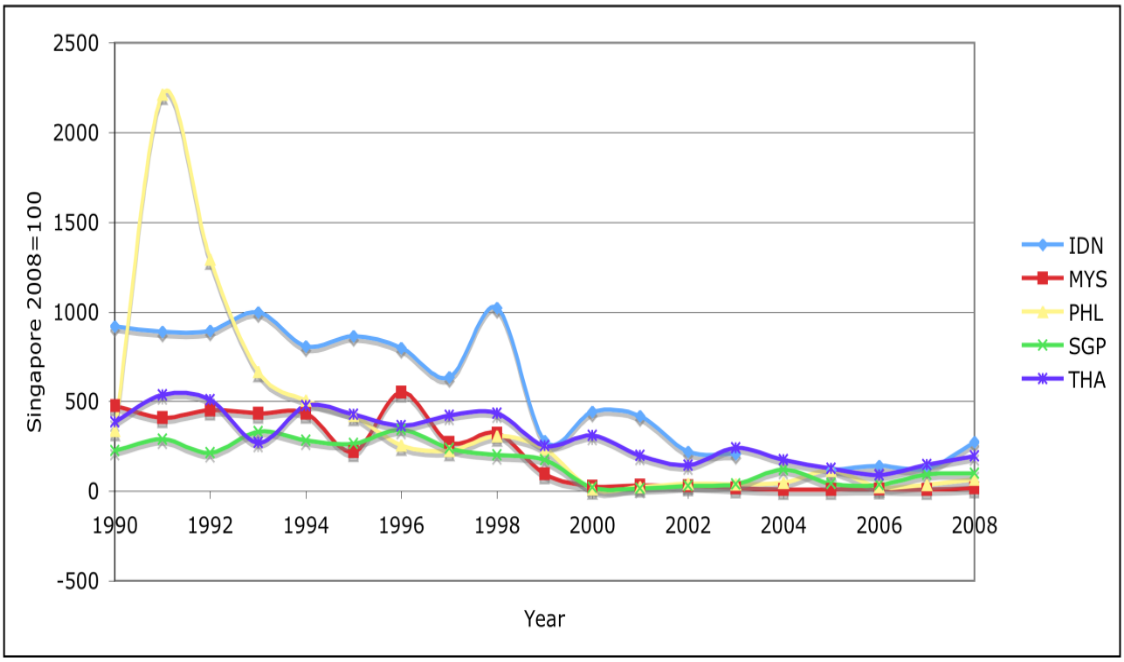


**Table A6: Index of Trade Costs. Brazilian imports (Singapore 2008=100).**

**Table A6a: Sea freight**

| YEAR | IDN | KHM | LAO | MMR | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|---|---|---|
| **1990** | 267 | n/a | n/a | n/a | 215 | 548 | 72 | 983 | 0 |
| **1991** | 301 | n/a | n/a | 518 | 278 | 519 | 309 | 450 | 375 |
| **1992** | 304 | n/a | n/a | n/a | 172 | 474 | 221 | 191 | 529 |
| **1993** | 418 | n/a | n/a | n/a | 114 | 539 | 86 | 107 | 406 |
| **1994** | 330 | 121 | n/a | n/a | 108 | 424 | 83 | 115 | 376 |
| **1995** | 142 | 166 | n/a | 249 | 118 | 238 | 48 | 82 | 295 |
| **1996** | 179 | 112 | n/a | 331 | 48 | 111 | 22 | 55 | 329 |
| **1997** | 172 | 78 | n/a | 257 | 40 | 144 | 29 | 47 | 261 |
| **1998** | 148 | 14 | n/a | 232 | 49 | 101 | 116 | 114 | 111 |
| **1999** | 267 | 118 | n/a | 21 | 48 | 53 | 48 | 99 | 98 |
| **2000** | 231 | 130 | 76 | 20 | 46 | 57 | 51 | 69 | 57 |
| **2001** | 192 | 96 | 63 | 89 | 55 | 84 | 54 | 78 | 60 |
| **2002** | 136 | 124 | 22 | 15 | 127 | 344 | 106 | 107 | 54 |
| **2003** | 102 | 11 | 5 | 57 | 55 | 237 | 112 | 91 | 106 |
| **2004** | 175 | 128 | 12 | 116 | 52 | 193 | 44 | 99 | 266 |
| **2005** | 136 | 24 | 11 | 104 | 55 | 45 | 100 | 61 | 230 |
| **2006** | 100 | 13 | 9 | 80 | 47 | 155 | 79 | 50 | 135 |
| **2007** | 99 | 13 | 208 | 136 | 48 | 137 | 68 | 57 | 237 |
| **2008** | 88 | 15 | 6 | 97 | 48 | 128 | 100 | 44 | 108 |

**Table A6b: Air freight**

| YEAR | IDN | KHM | LAO | MMR | MYS | PHL | SGP | THA | VNM |
|---|---|---|---|---|---|---|---|---|---|
| **1990** | 507 | n/a | n/a | n/a | 514 | 153 | 438 | 628 | n/a |
| **1991** | 2288 | n/a | n/a | n/a | 594 | 1397 | 355 | 710 | n/a |
| **1992** | 2041 | n/a | n/a | n/a | 423 | 474 | 371 | 271 | n/a |
| **1993** | 2459 | n/a | n/a | n/a | 636 | 307 | 570 | 435 | n/a |
| **1994** | 2653 | n/a | n/a | n/a | 513 | 236 | 343 | 487 | 149 |
| **1995** | 1486 | n/a | n/a | n/a | 892 | 264 | 429 | 455 | 1231 |
| **1996** | 543 | 401 | n/a | n/a | 433 | 659 | 464 | 1863 | 714 |
| **1997** | 434 | 454 | n/a | 971 | 117 | 104 | 211 | 248 | 108 |
| **1998** | 508 | 205 | n/a | 238 | 96 | 75 | 171 | 197 | 617 |
| **1999** | 612 | 200 | n/a | n/a | 108 | 63 | 119 | 217 | 121 |
| **2000** | 376 | 198 | n/a | 79 | 109 | 74 | 150 | 191 | 214 |
| **2001** | 396 | 25 | n/a | 196 | 84 | 72 | 123 | 223 | 268 |
| **2002** | 461 | 136 | 132 | 122 | 81 | 35 | 130 | 165 | 165 |
| **2003** | 329 | 572 | 202 | 68 | 72 | 30 | 112 | 197 | 218 |
| **2004** | 429 | 434 | 310 | 313 | 96 | 43 | 107 | 192 | 269 |
| **2005** | 397 | 358 | 730 | 239 | 97 | 62 | 89 | 229 | 233 |
| **2006** | 468 | 444 | 157 | 162 | 119 | 73 | 88 | 191 | 296 |
| **2007** | 491 | 531 | 161 | 86 | 119 | 68 | 72 | 275 | 495 |
| **2008** | 461 | 604 | 166 | 441 | 120 | 65 | 100 | 231 | 469 |

**Figure A5a: Index of Trade Costs, Sea, ASEAN5 (Brazilian imports; Singapore 2008=100).**

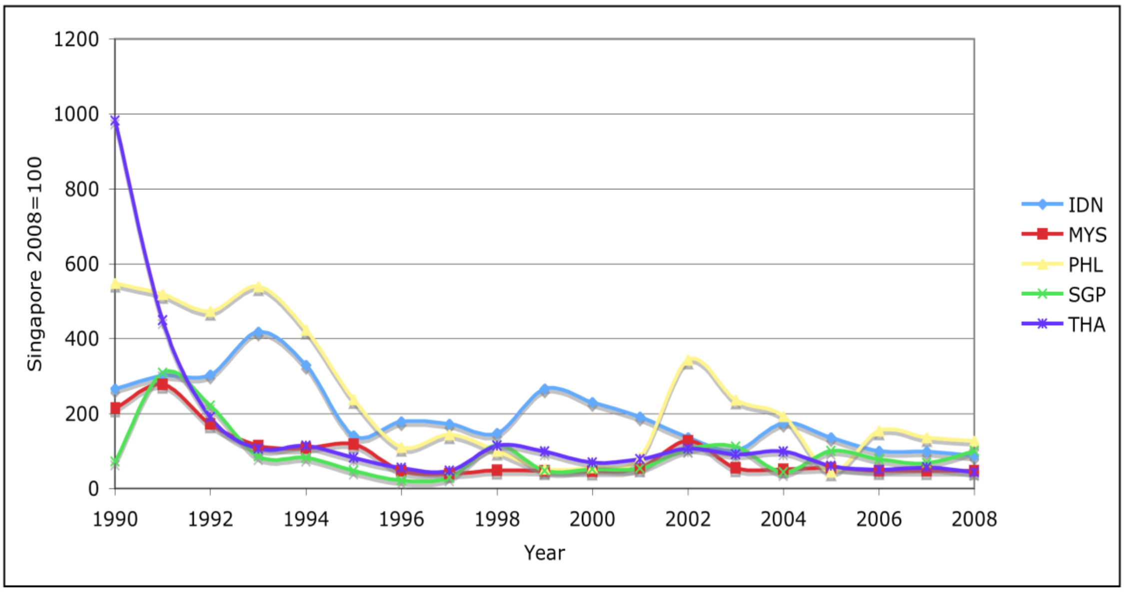
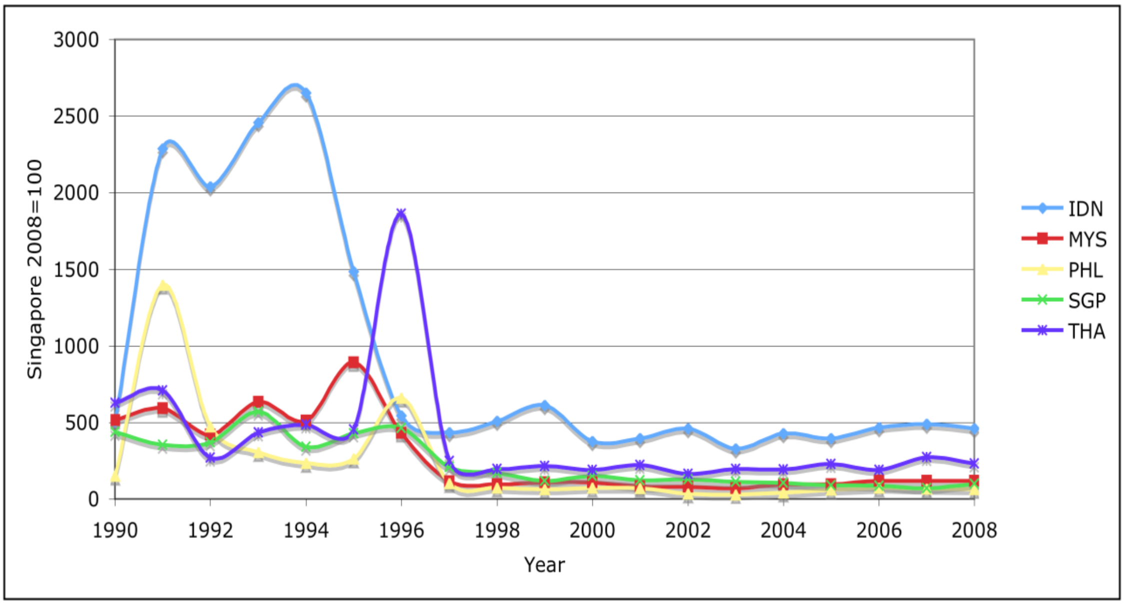



**Figure A5b: Index of Trade Costs, Air, ASEAN5 (Brazilian imports; Singapore 2008=100).**



# CHAPTER 4

# Investment Climate Study of ASEAN Member Countries

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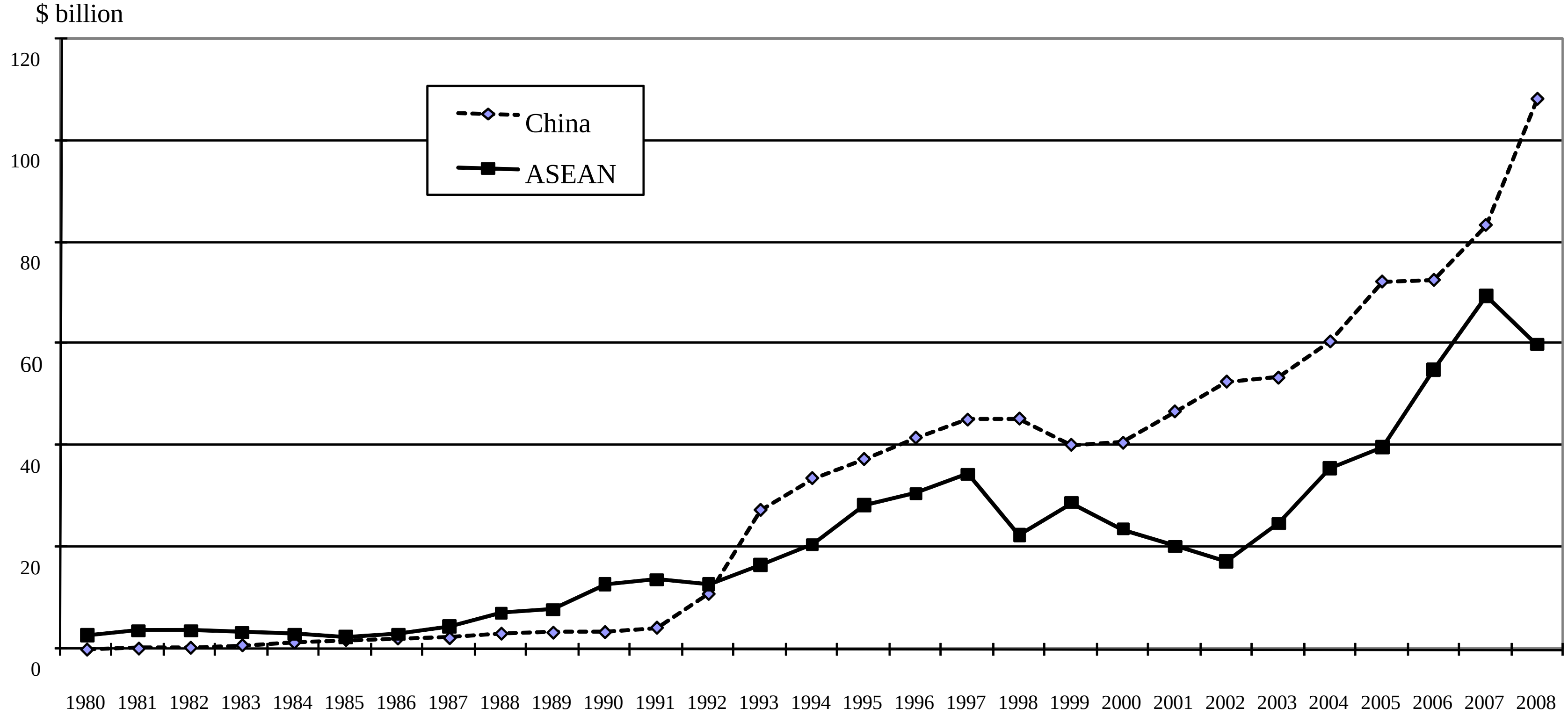
*This paper analyzes the FDI environment of the ASEAN countries with a view that the identification of impediments to FDI would provide useful information to policy makers interested in attracting FDI. The coverage of impediments to FDI in this study includes not only the FDI policies but also the implementation and enforcement of these policies. As for the openness of FDI policies, we find wide variations among the ASEAN countries. Most serious impediments are found to be the lack of transparency and complicated/delayed processing in screening and appraisal procedures regarding FDI application. Our findings indicate the need for further liberalization of FDI policies and promotion of facilitation measures in order to successfully attract FDI. In order to achieve these goals, we make several suggestions. First, to promote FDI policy liberalization, the ASEAN countries should use various existing frameworks, such as WTO/GATT's TRIMs agreement, BITs, and FTAs. In particular, ASEAN should use the ASEAN Comprehensive Investment Agreement. Second, to overcome obstacles concerning FDI facilitation, the ASEAN countries should actively use various cooperation programs with developed countries to improve human resources engaged in the implementation and enforcement of FDI policies. Possible multilateral and regional sources of technical assistance in this area are the UNCTAD, OECD, and ERIA. Third, monitoring of the implementation of FDI liberalization and facilitation measures has to be emphasized to achieve a freer FDI environment. In this regard, a monitoring mechanism should be established in ASEAN or in ERIA.*

## 1. Introduction

Many countries are eager to attract foreign direct investment (FDI), as FDI can contribute to economic development and growth in the FDI recipient countries. FDI has been proven to contribute to economic growth through various channels. FDI can bring not only financial resources for fixed investment but also technologies and managerial know-how, which play crucial roles in promoting economic growth for the recipient countries. Moreover, FDI enables the recipient countries to be engaged in various networks, such as the production, sales, procurement, and information networks of foreign multinational corporations (MNCs), major suppliers of FDI, resulting in an improvement of efficiency in production and marketing. Indeed, in East Asia FDI has helped enable East Asian countries to achieve high economic growth through these factors.

The members of the Association of Southeast Asian Nations (ASEAN) have been quite successful in attracting FDI in recent years (Figure 1.1). After reaching a trough in 2002, FDI inflows to ASEAN continued rising noticeably until 2007. I n five years from 2002 to 2007 FDI inflows to ASEAN more than quadrupled from $17 billion to $69 billion (Table 1.1). In 2008 ASEAN as a whole experienced a substantial decline in FDI inflow by approximately $10 billion or 13.8 percent from 2007. There are wide variations in the changes in FDI inflows in 2008 among the ASEAN members, all of which recorded a more or less steady increase prior to 2008. Indonesia achieved a notable increase while Singapore, the Philippines and many other countries saw a decline.

**Figure 1.1 FDI Inflows to ASEAN and China: 1980-2008**




*Source*: UNCTAD, Foreign Direct Investment Database

**Table 1.1. Foreign Direct Investment Inflows to ASEAN and China by Country (million)**

| Countries | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 1990-2008 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brunei | 7 | 6 | 7 | 8 | 6 | 583 | 654 | 702 | 573 | 748 | 549 | 526 | 1,035 | 3,375 | 334 | 289 | 434 | 260 | 239 | 10,335 |
| Cambodia | 0 | 0 | 33 | 54 | 69 | 151 | 294 | 168 | 243 | 232 | 149 | 149 | 145 | 84 | 131 | 381 | 483 | 867 | 815 | 4,449 |
| Indonesia | 1,092 | 1,482 | 1,799 | 2,003 | 2,191 | 4,419 | 6,245 | 4,729 | -207 | -1,838 | -4,495 | -2,926 | 232 | -507 | 1,896 | 8,336 | 4,914 | 6,928 | 7,919 | 44,212 |
| Lao PDR | 6 | 7 | 8 | 36 | 59 | 88 | 128 | 86 | 45 | 52 | 34 | 24 | 25 | 19 | 17 | 28 | 187 | 324 | 228 | 1,401 |
| Malaysia | 2,611 | 4,043 | 5,138 | 5,741 | 4,581 | 5,815 | 7,297 | 6,323 | 2,714 | 3,895 | 3,788 | 554 | 3,203 | 2,473 | 4,624 | 4,064 | 6,060 | 8,401 | 8,053 | 89,378 |
| Myanmar | 225 | 235 | 149 | 92 | 135 | 318 | 581 | 879 | 684 | 304 | 208 | 192 | 191 | 291 | 251 | 236 | 428 | 258 | 283 | 5,939 |
| Philippines | 550 | 556 | 776 | 1,238 | 1,591 | 1,459 | 1,520 | 1,249 | 1,752 | 1,247 | 2,240 | 195 | 1,542 | 491 | 688 | 1,854 | 2,921 | 2,916 | 1,520 | 26,305 |
| Singapore | 5,575 | 4,887 | 2,204 | 4,686 | 8,550 | 11,535 | 9,682 | 13,753 | 7,314 | 16,578 | 16,484 | 15,093 | 6,381 | 11,800 | 20,054 | 14,374 | 27,680 | 31,550 | 22,725 | 250,907 |
| Thailand | 2,575 | 2,049 | 2,151 | 1,807 | 1,369 | 2,070 | 2,338 | 3,882 | 7,492 | 6,091 | 3,349 | 5,061 | 3,335 | 5,235 | 5,862 | 8,048 | 9,460 | 11,238 | 10,091 | 93,502 |
| Vietnam | 180 | 375 | 474 | 926 | 1,945 | 1,780 | 1,803 | 2,587 | 1,700 | 1,484 | 1,289 | 1,300 | 1,200 | 1,450 | 1,610 | 2,021 | 2,400 | 6,739 | 8,050 | 39,314 |
| ASEAN | 12,821 | 13,640 | 12,739 | 16,591 | 20,496 | 28,218 | 30,542 | 34,358 | 22,310 | 28,793 | 23,595 | 20,169 | 17,291 | 24,712 | 35,468 | 39,630 | 54,967 | 69,481 | 59,922 | 656,741 |
| China | 3,487 | 4,366 | 11,008 | 27,515 | 33,767 | 37,521 | 41,729 | 45,257 | 45,463 | 40,319 | 40,715 | 46,878 | 52,743 | 53,505 | 60,630 | 72,406 | 72,715 | 83,521 | 108,312 | 881,851 |

*Source*: UNCTAD, Foreign Direct Invesment Database

Although ASEAN members have been experiencing favorable performance in attracting FDI in recent years, except for 2008, their performance has been overshadowed by China. After being surpassed by China in the early 1990s in terms of FDI inflows, ASEAN has not been able to regain the commanding position it had in the 1980s. In 2008 China continued attracting FDI successfully, while FDI inflows to ASEAN declined.

Various factors influence the attractiveness of the host country for FDI inflows[1]. Political and economic stability is found to play an important role in attracting FDI. Political and economic instability discourages MNCs from undertaking FDI as it increases the risk of losing invested assets. Large market size, favorable future economic prospects, availability of educated, well-disciplined, low-wage labor, well-developed soft and hard infrastructure are also attractive features of the host country for attracting FDI. Having discussed important elements in attracting FDI, one of the most important factors is a country's FDI policy regime. A country with many attractive features such as large market size cannot attract FDI if the country imposes restrictions on FDI inflows. Even if the FDI regime is open, a country has difficulty in attracting FDI if the FDI regime of the country lacks transparency or stability. These observations indicate the importance of the FDI policy regime as well as the FDI policy environment in determining the attractiveness of a country for FDI inflows.

In light of the observation that the FDI policy regime and FDI policy environment play important roles in determining FDI inflows, this study examines and evaluates the

1 For example, see Urata (2006) for the determinants of FDI inflows in East Asian countries.

restrictiveness/openness of FDI policy regimes and environments for ASEAN countries. We adopt two approaches to achieve our objective. In order to evaluate an FDI policy regime, we examine FDI policies which are documented in legal documents, such as FDI Laws, from the following six aspects: market access or right of establishment, national treatment, screening and approval procedure, restrictions on boards of directors as well as foreign investors, and performance requirements. To shed more light on the FDI policy environment, we use the information on barriers to FDI available from the survey compiled by the Japan Machinery Center for Trade and Investment (JMC), (JMC survey hereinafter).[2] Use of the information provided by the companies would reveal the true impediments to FDI. It is indeed well known, especially in developing countries, that the presence of a law does not mean that the law is actually implemented and enforced. By conducting these two kinds of analysis, we should be able to discern the policy-related impediments to FDI in ASEAN countries.

It is hoped that our study would contribute to a deeper understanding of the FDI policy regimes and FDI policy environments of ASEAN countries and to help them formulate FDI policy. In particular, the results of this study may provide useful information to the ASEAN country governments, which have committed to creating an ASEAN economic community by 2015, where free flow of FDI would be realized.

The structure of the study is as follows. Section 2 reviews two comparative studies assessing the business environment of ASEAN and other countries, to set the stage for our analysis of FDI policy regimes and environments. This review is expected to

[2] See section 3 for a detailed explanation of the JMC survey.

discern the business environment in ASEAN from the global perspective. Sections 3 and 4 focus on ASEAN countries. Section 3 examines FDI policy regimes by assessing the contents of legal frameworks, while section 4 examines FDI policy environments by assessing the information collected from companies. Section 5 concludes the study by presenting policy recommendations.

## 2. ASEAN's Business Environment from a Global Perspective

An assessment of the business environment in ASEAN countries from a global perspective provides useful information for understanding the problems/barriers impeding foreign direct investment. With this in mind, this section reviews the results of two studies by international organizations and think-tanks that have analyzed the business environment of a large number of countries. Specifically, we take up the following studies: *Doing Business Database* compiled by the World Bank (World Bank, 2010) and *Global Competitiveness Report* 2006-2007, 2008-2009, and 2009-2010 published by the World Economic Forum (World Economic Forum, 2006, 2008, and 2009).

Table 2.1, constructed from the *Doing Business Database*, presents the latest ranking of the ease of doing business for the ASEAN10 economies in 2005, 2009, and 2010. It highlights cases with rankings lower than half of the number of sample countries. While the overall rankings in 2010 (Table 2.1 (a)) are high for Singapore ($1^{st}$

out of 183), Thailand (12$^{th}$), and Malaysia (23$^{rd}$), they are particularly low for new ASEAN members and Indonesia and the Philippines: Laos (167$^{th}$), the Philippines (166$^{th}$), Cambodia (145$^{th}$), Indonesia (122$^{nd}$), and Viet Nam (93$^{rd}$). When the overall rankings in 2010 are compared with those in 2009 (Table 2.1 (b)) and those in 2005 (Table 2.1 (c)), they are more or less similar to each other, except in the case of the Philippines; this country's ranking gradually dropped from 121$^{st}$ (out of 175) in 2005 to 140$^{th}$ (out of 181) in 2009 and 166$^{th}$ (out of 183) in 2010.

**Table 2.1. Ranking of ease of doing business ofr ASEAN economies**

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Philippines | Singapore | Thailand | Vietnam | Average (9) | Average (6) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (a) 2010 | | | | | | | | | | | |
| Overall ranking (out of 183 | 96 | 145 | 122 | 167 | 23 | 166 | 1 | 12 | 93 | 92 | 70 |
| Ranking for 10 factors | | | | | | | | | | | |
| Starting a business | 153 | 173 | 161 | 89 | 88 | 162 | 4 | 55 | 116 | 111 | 98 |
| Dealing with licenses | 75 | 145 | 61 | 115 | 109 | 111 | 2 | 13 | 69 | 78 | 61 |
| Employing workers | 4 | 134 | 149 | 107 | 61 | 115 | 1 | 52 | 103 | 81 | 80 |
| Registering property | 183 | 116 | 95 | 161 | 86 | 102 | 16 | 6 | 40 | 89 | 58 |
| Getting credit | 113 | 87 | 113 | 150 | 1 | 127 | 4 | 71 | 30 | 77 | 58 |
| Protecting investors | 119 | 73 | 41 | 182 | 4 | 132 | 2 | 12 | 172 | 82 | 61 |
| Paying taxes | 22 | 58 | 127 | 113 | 24 | 135 | 5 | 88 | 147 | 80 | 88 |
| Trading across borders | 48 | 127 | 45 | 168 | 35 | 68 | 1 | 12 | 74 | 64 | 39 |
| Enforcing contracts | 160 | 141 | 146 | 111 | 59 | 118 | 13 | 24 | 32 | 89 | 65 |
| Closing a business | 37 | 183 | 142 | 183 | 57 | 153 | 2 | 48 | 127 | 104 | 88 |
| (b) 2009 | | | | | | | | | | | |
| Overall ranking (out of 181 | 88 | 135 | 129 | 165 | 20 | 140 | 1 | 13 | 92 | 87 | 66 |
| Ranking for 10 factors | | | | | | | | | | | |
| Starting a business | 130 | 169 | 171 | 92 | 75 | 155 | 10 | 44 | 108 | 106 | 94 |
| Dealing with licenses | 72 | 147 | 80 | 110 | 104 | 105 | 2 | 12 | 67 | 78 | 62 |
| Employing workers | 5 | 134 | 157 | 85 | 48 | 126 | 1 | 56 | 90 | 78 | 80 |
| Registering property | 177 | 108 | 107 | 159 | 81 | 97 | 16 | 5 | 37 | 87 | 57 |
| Getting credit | 109 | 68 | 109 | 145 | 1 | 123 | 5 | 68 | 43 | 75 | 58 |
| Protecting investors | 113 | 70 | 53 | 180 | 4 | 126 | 2 | 11 | 170 | 81 | 61 |
| Paying taxes | 35 | 24 | 116 | 113 | 21 | 129 | 5 | 82 | 140 | 74 | 82 |
| Trading across borders | 42 | 122 | 37 | 165 | 29 | 58 | 1 | 10 | 67 | 59 | 34 |
| Enforcing contracts | 157 | 136 | 140 | 111 | 59 | 114 | 14 | 25 | 42 | 89 | 66 |
| Closing a business | 35 | 181 | 139 | 181 | 54 | 151 | 2 | 46 | 124 | 101 | 86 |
| (c) 2005 | | | | | | | | | | | |
| Overall ranking (out of 175 | n.a. | n.a. | 131 | n.a. | 25 | 121 | 2 | 19 | 98 | n.a. | 66 |
| Ranking for 10 factors | | | | | | | | | | | |
| Starting a business | n.a. | n.a. | 161 | n.a. | 66 | 99 | 11 | 23 | 89 | n.a. | 75 |
| Dealing with licenses | n.a. | n.a. | 129 | n.a. | 134 | 112 | 10 | 6 | 28 | n.a. | 70 |
| Employing workers | n.a. | n.a. | 141 | n.a. | 37 | 118 | 4 | 46 | 137 | n.a. | 81 |
| Registering property | n.a. | n.a. | 118 | n.a. | 68 | 91 | 12 | 16 | 30 | n.a. | 56 |
| Getting credit | n.a. | n.a. | 76 | n.a. | 3 | 96 | 7 | 41 | 76 | n.a. | 50 |
| Protecting investors | n.a. | n.a. | 58 | n.a. | 3 | 151 | 2 | 33 | 170 | n.a. | 70 |
| Paying taxes | n.a. | n.a. | 129 | n.a. | 49 | 96 | 8 | 54 | 116 | n.a. | 75 |
| Trading across borders | n.a. | n.a. | 55 | n.a. | 41 | 61 | 2 | 97 | 68 | n.a. | 54 |
| Enforcing contracts | n.a. | n.a. | 144 | n.a. | 78 | 50 | 23 | 43 | 90 | n.a. | 71 |
| Closing a business | n.a. | n.a. | 126 | n.a. | 47 | 143 | 2 | 36 | 105 | n.a. | 77 |

*Data source*: World Bank (2010)

*Notes*: average ranking is calculated for a comparison among 10 factors. Average (9) and average, (6) show average ranking for nine countries and six countries who appear in 2005, respectively.

The *Doing Business Database* evaluates the following 10 aspects of the business environment: i. starting a business, ii. dealing with licenses, iii. employing workers, iv. registering property, v. getting credit, vi. protecting investors, vii. paying taxes, ix. enforcing contracts, and x. closing a business. The problems that need to be solved vary among the ASEAN countries. For the ASEAN region as a whole, however, the most serious problems are in the areas of starting a business ($111^{th}$/$106^{th}$ on average) and closing a business ($104^{th}$/$101^{st}$), for which their rankings are significantly lower than their overall average of $92^{nd}$/$87^{th}$ in 2010/2009. On the other hand, interestingly, the ranking for trading across borders is much higher than other items for ASEAN: $64^{th}$/$59^{th}$ on average for ASEAN9 and $39^{th}$/$34^{th}$ for ASEAN6 in 2010/2009. When the rankings in 2010 are compared with those in 2005, some items tend to improve while others worsen. In particular, relative evaluations for trading across borders drastically improved from $54^{th}$ to $39^{th}$ on average of ASEAN6 countries, while relative evaluations for starting a business significantly worsened from $75^{th}$ to $98^{th}$. These relatively high and rapidly improving rankings for trade activities may reflect the recent efforts that ASEAN countries have made for trade liberalization and facilitation, particularly to create an ASEAN Economic Community (AEC) with a targeted year of 2015.[3]

The survey results in Table 2.2 reveal that the lengths of time required for starting a business and closing a business are too long; for instance, it takes 116 days for Brunei

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[3] See Ishikawa *et al.*(2009) for efforts made by ASEAN countries, as a part of movements toward AEC, to form national single windows (NSW) and ASEAN single windows (ASW), which are one-stop services for trade at the national and ASEAN-wide level, as well as other discussion on AEC.

and 100 days for Laos to start a business. Many procedures are necessary, particularly for starting a business and obtaining certain licenses, and the time requirement may be due to the complexity of and/or delays in procedures; more than 10 kinds of procedure are required to start a business in Brunei, the Philippines, and Vietnam, and more than 20 procedures are necessary to deal with licenses in Brunei, Malaysia, Lao PDR, the Philippines, and Cambodia. Costs expressed as percentage of income per capita to start a business/ dealing with licenses are also high in some countries; for example, Cambodia for starting a business and Vietnam, Indonesia, and Lao PDR for dealing with licenses. Moreover, high minimum capital levels discourage starting a business in countries such as Indonesia and Cambodia. Furthermore, the degree of difficulty in hiring and firing workers seem to be extremely high for Indonesia, and firing costs are particularly troublesome; firing costs expressed as the number of weeks wages are as high as 162 for Lao PDR, 108 for Indonesia, 91 for the Philippines, and 87 for Vietnam in extreme cases.

## Table 2.2. Components of Ease of Doing Business and Their Evaluation for ASEAN Economies, 2C

| | | 2010 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Philippines | Singapore | Thailand | Vietnam |
| Starting a Business | Procedures (number) | 18 | 9 | 9 | 7 | 9 | 15 | 3 | 7 | 11 |
| | Time (days) | 116 | 85 | 60 | 100 | 11 | 52 | 3 | 32 | 50 |
| | Cost (% of income per capita) | 10 | 138 | 26 | 12 | 12 | 28 | 1 | 6 | 13 |
| | Min. capital (% of income per capita) | 0 | 37 | 60 | 0 | 0 | 6 | 0 | 0 | 0 |
| Dealing with Licenses | Procedures (number) | 32 | 23 | 14 | 24 | 25 | 24 | 11 | 11 | 13 |
| | Time (days) | 163 | 709 | 160 | 172 | 261 | 203 | 25 | 156 | 194 |
| | Cost (% of income per capita) | 5 | 54 | 195 | 144 | 7 | 82 | 20 | 12 | 248 |
| Employing Workers | Difficulty of Hiring Index (0-100) | 0 | 44 | 61 | 11 | 0 | 56 | 0 | 33 | 11 |
| | Rigidity of Hours Index (0-100) | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| | Difficulty of Firing Index (0-100) | 0 | 30 | 60 | 50 | 30 | 30 | 0 | 0 | 40 |
| | Rigidity of Employment Index (0-100) | 0 | 36 | 40 | 20 | 10 | 29 | 0 | 11 | 21 |
| | Firing costs (weeks of wages) | 4 | 39 | 108 | 162 | 75 | 91 | 4 | 54 | 87 |
| Registering Property | Procedures (number) | .. | 7 | 6 | 9 | 5 | 8 | 3 | 2 | 4 |
| | Time (days) | .. | 56 | 22 | 135 | 144 | 33 | 5 | 2 | 57 |
| | Cost (% of property value) | .. | 4 | 11 | 4 | 3 | 4 | 3 | 1 | 1 |
| Getting Credit | Legal Rights Index (0-10) | 7 | 8 | 3 | 4 | 10 | 3 | 10 | 4 | 8 |
| | Credit Information Index (0-6) | 0 | 0 | 4 | 0 | 6 | 3 | 9 | 5 | 4 |
| | Public registry coverage (% adults) | 0 | 0 | 22 | 0 | 49 | 0 | 9 | 0 | 19 |
| | Private bureau coverage (% adults) | 0 | 0 | 0 | 0 | 82 | 6 | 9 | 33 | 0 |
| Protecting Investors | Disclosure Index (0-10) | 3 | 5 | 10 | 0 | 10 | 2 | 5 | 10 | 6 |
| | Director Liability Index (0-10) | 2 | 9 | 5 | 3 | 9 | 2 | 84 | 7 | 0 |
| | Shareholder Suits Index (0-10) | 8 | 2 | 3 | 2 | 7 | 8 | 7.9 | 6 | 2 |
| | Investor Protection Index (0-10) | 4 | 5 | 6 | 2 | 9 | 4 | 15 | 8 | 3 |
| Paying Taxes | Payments (number) | 15 | 39 | 51 | 34 | 12 | 47 | 5 | 23 | 32 |
| | Time (hours) | 144 | 173 | 266 | 362 | 145 | 195 | 84 | 264 | 1050 |
| | Profit tax (%) | 25 | 19 | 27 | 25 | 17 | 25 | 8 | 29 | 21 |
| | Labor tax and contributions (%) | 6 | 0 | 11 | 6 | 16 | 10 | 15 | 6 | 19 |
| | Other taxes (%) | 0 | 4 | 0 | 3 | 2 | 14 | 5 | 3 | 0 |
| | Total tax rate (% profit) | 30 | 23 | 38 | 34 | 34 | 49 | 28 | 37 | 40 |
| Trading Across Borders | Documents for export (number) | 6 | 11 | 5 | 9 | 7 | 8 | 4 | 4 | 6 |
| | Time for export (days) | 28 | 22 | 21 | 50 | 18 | 16 | 5 | 14 | 22 |
| | Cost to export (US$ per container) | 630 | 732 | 704 | 1860 | 450 | 816 | 456 | 625 | 756 |
| | Documents for import (number) | 6 | 11 | 6 | 10 | 7 | 8 | 4 | 3 | 8 |
| | Time for import (days) | 19 | 30 | 27 | 50 | 14 | 16 | 3 | 13 | 21 |
| | Cost to import (US$ per container) | 708 | 872 | 660 | 2040 | 450 | 819 | 439 | 795 | 940 |
| Enforcing Contracts | Procedures (number) | 58 | 44 | 39 | 42 | 30 | 37 | 21 | 35 | 34 |
| | Time (days) | 540 | 401 | 570 | 443 | 585 | 842 | 150 | 479 | 295 |
| | Cost (% of debt) | 37 | 103 | 123 | 32 | 28 | 26 | 26 | 12 | 29 |
| Closing a Business | Time (years) | 3 | .. | 6 | .. | 2 | 6 | 1 | 3 | 5 |
| | Cost (% of estate) | 4 | .. | 18 | .. | 15 | 38 | 1 | 36 | 15 |
| | Recovery rate (cents on the dollar) | 47 | 0 | 14 | 0 | 39 | 4 | 91 | 42 | 18 |

*Data source:* World Bank (2010)

Even for trading across borders with relatively high ranking, there remains room for further improvement in terms of the number of days and the costs required for export and import processes. For instance, reduction of costs for exports and imports is necessary particularly for Lao PDR, the Philippines, Vietnam, and Cambodia, and the reduction of time for export and import operations is needed mainly for Lao PDR, Cambodia, Indonesia, and Vietnam. To realize them requires the development of a logistics-related infrastructure such as ports and roads, and improved efficiency in customs clearance in addition to the reduction (and simplification) of tariffs and non-tariff measures (NTMs).

Table 2.3 presents a global competitiveness index (GCI) by country and by category, obtained from the *Global Competitiveness Report*, highlighting cases with rankings lower than half of the number of sample countries. The figures in the upper portion of Table 2.3 (a)/(b)/(c) indicate the ranking of a country among 133/134/125 countries for the items concerned (low figures indicate high rankings), while the figures in the lower portion of the table indicate the score (high numbers indicate high scores with 7 as the full score). The GCI evaluates the competitiveness of countries based on three broad categories with two to six sub-categories. The three broad categories are basic requirements, efficiency enhancers, and innovation and sophistication factors. The sub-categories are further broken down into the much more precise factors shown in Table A.2.1 in the Appendix. [4] Although the degree of competitiveness of a specific country

[4] Factors considered as disadvantages are those ranked below 10 for Singapore with an overall ranking in the top 10 economies, those ranked equal to or lower than the economy's overall ranking

may not directly influence the investment activities of firms, competitiveness would have a positive impact on investment decisions. Firms prefer competitive countries to less competitive ones for the location of their operations in the global market when considering investment decisions.

for Brunei, Malaysia, Thailand, and Indonesia with an overall ranking from 11 to 50, and those ranked lower than 50 for Cambodia, Indonesia, the Philippines, and Viet Nam with an overall ranking lower than 51.

## Table 2.3. The Global Competitiveness Index (GCI) for ASEAN economies

**(a) 2009-2010 (133 economies)**

| | Brunei | Cambodia | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam | Average (8) | Average (6) |
|---|---|---|---|---|---|---|---|---|---|---|
| *Ranking (out of 133/134 economies)* | | | | | | | | | | |
| **GCI** | 32 | 110 | 54 | 24 | 87 | 3 | 36 | 75 | 53 | 47 |
| **Basic requirements** | 19 | 112 | 70 | 33 | 95 | 2 | 43 | 92 | 58 | 56 |
| Institutions | 36 | 92 | 58 | 43 | 113 | 1 | 60 | 63 | 58 | 56 |
| Infrastructure | 41 | 95 | 84 | 26 | 98 | 4 | 40 | 94 | 60 | 58 |
| Macroeconomy | 1 | 122 | 52 | 42 | 76 | 35 | 22 | 112 | 58 | 57 |
| Health and primary education | 42 | 107 | 82 | 34 | 93 | 16 | 61 | 76 | 64 | 60 |
| **Efficiency enhancers** | 76 | 103 | 50 | 25 | 78 | 2 | 40 | 61 | 54 | 43 |
| Higher education and training | 62 | 122 | 69 | 41 | 68 | 5 | 54 | 92 | 64 | 55 |
| Goods market efficiency | 100 | 85 | 41 | 30 | 95 | 1 | 44 | 67 | 58 | 46 |
| Labor market efficiency | 10 | 52 | 75 | 31 | 113 | 1 | 25 | 38 | 43 | 47 |
| Financial market sophistication | 68 | 94 | 61 | 6 | 93 | 2 | 49 | 82 | 57 | 49 |
| Technological readiness | 60 | 113 | 88 | 37 | 84 | 6 | 63 | 73 | 66 | 59 |
| Market size | 115 | 92 | 16 | 28 | 35 | 39 | 21 | 38 | 48 | 30 |
| **Innovation and sophistication factors** | 81 | 107 | 40 | 24 | 74 | 10 | 47 | 55 | 55 | 42 |
| Business sophistication | 77 | 101 | 40 | 24 | 65 | 14 | 43 | 70 | 54 | 43 |
| Innovation | 75 | 107 | 39 | 24 | 99 | 8 | 57 | 44 | 57 | 45 |
| *Score (out of 7)* | | | | | | | | | | |
| **GCI** | 4.6 | 3.5 | 4.3 | 4.9 | 3.9 | 5.5 | 4.6 | 4.0 | 4.4 | 4.5 |
| **Basic Requirements** | 5.4 | 3.6 | 4.3 | 5.1 | 3.9 | 6.0 | 4.9 | 4.0 | 4.7 | 4.7 |
| Institutions | 4.8 | 3.5 | 4.0 | 4.5 | 3.2 | 6.1 | 4.0 | 3.9 | 4.3 | 4.3 |
| Infrastructure | 4.6 | 2.9 | 3.2 | 5.0 | 2.9 | 6.4 | 4.6 | 3.0 | 4.1 | 4.2 |
| Macroeconomy | 6.6 | 3.4 | 4.8 | 5.0 | 4.5 | 5.2 | 5.4 | 3.9 | 4.9 | 4.8 |
| Health and primary education | 5.8 | 4.4 | 5.2 | 5.9 | 5.1 | 6.2 | 5.5 | 5.3 | 5.4 | 5.5 |
| **Efficiency enhancers** | 3.9 | 3.5 | 4.2 | 4.8 | 3.9 | 5.6 | 4.5 | 4.1 | 4.3 | 4.5 |
| Higher education and training | 4.1 | 2.8 | 3.9 | 4.5 | 3.9 | 5.6 | 4.3 | 3.5 | 4.1 | 4.3 |
| Goods market efficiency | 3.9 | 4.0 | 4.5 | 4.8 | 3.9 | 5.8 | 4.5 | 4.2 | 4.5 | 4.6 |
| Labor market efficiency | 5.2 | 4.5 | 4.3 | 4.7 | 3.9 | 5.9 | 4.8 | 4.7 | 4.8 | 4.7 |
| Financial market sophistication | 4.2 | 3.8 | 4.3 | 5.4 | 3.8 | 5.9 | 4.5 | 4.1 | 4.5 | 4.7 |
| Technological readiness | 3.8 | 2.7 | 3.2 | 4.5 | 3.3 | 5.9 | 3.7 | 3.5 | 3.8 | 4.0 |
| Market size | 2.6 | 3.1 | 5.2 | 4.7 | 4.6 | 4.5 | 5.0 | 4.6 | 4.3 | 4.8 |
| **Innovation and sophistication factors** | 3.4 | 3.1 | 4.0 | 4.4 | 3.4 | 5.1 | 3.8 | 3.7 | 3.9 | 4.1 |
| Business sophistication | 3.8 | 3.4 | 4.5 | 4.8 | 4.1 | 5.2 | 4.4 | 4.0 | 4.3 | 4.5 |
| Innovation | 3.0 | 2.7 | 3.6 | 4.1 | 2.8 | 5.1 | 3.3 | 3.5 | 3.5 | 3.7 |

**(b) 2008-2009 (134 economies)**

| | Brunei | Cambodia | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam | Average (8) | Average (6) |
|---|---|---|---|---|---|---|---|---|---|---|
| *Ranking (out of 133/134 economies)* | | | | | | | | | | |
| **GCI** | 39 | 109 | 55 | 21 | 71 | 5 | 34 | 70 | 51 | 43 |
| **Basic requirements** | 29 | 107 | 76 | 25 | 85 | 3 | 43 | 79 | 56 | 52 |
| Institutions | 41 | 103 | 68 | 30 | 105 | 1 | 57 | 71 | 60 | 55 |
| Infrastructure | 39 | 97 | 86 | 23 | 92 | 4 | 29 | 93 | 58 | 55 |
| Macroeconomy | 2 | 105 | 72 | 38 | 53 | 21 | 41 | 70 | 50 | 49 |
| Health and primary education | 47 | 111 | 87 | 23 | 90 | 16 | 58 | 84 | 65 | 60 |
| **Efficiency enhancers** | 77 | 115 | 49 | 24 | 68 | 2 | 36 | 73 | 56 | 42 |
| Higher education and training | 69 | 127 | 71 | 35 | 60 | 8 | 51 | 98 | 65 | 54 |
| Goods market efficiency | 91 | 88 | 37 | 23 | 81 | 1 | 46 | 70 | 55 | 43 |
| Labor market efficiency | 16 | 33 | 43 | 19 | 101 | 2 | 13 | 47 | 34 | 38 |
| Financial market sophistication | 75 | 130 | 57 | 16 | 78 | 2 | 49 | 80 | 61 | 47 |
| Technological readiness | 54 | 123 | 88 | 34 | 70 | 7 | 66 | 79 | 65 | 57 |
| Market size | 116 | 95 | 17 | 28 | 34 | 41 | 21 | 40 | 49 | 30 |
| **Innovation and sophistication factors** | 87 | 112 | 45 | 23 | 67 | 11 | 46 | 71 | 58 | 44 |
| Business sophistication | 89 | 110 | 39 | 22 | 57 | 14 | 46 | 84 | 58 | 44 |
| Innovation | 91 | 112 | 47 | 22 | 76 | 11 | 54 | 57 | 59 | 45 |
| *Score (out of 7)* | | | | | | | | | | |
| **GCI** | 4.5 | 3.5 | 4.3 | 5.0 | 4.1 | 5.5 | 4.6 | 4.1 | 4.5 | 4.6 |
| **Basic Requirements** | 5.3 | 3.7 | 4.3 | 5.4 | 4.2 | 6.1 | 5.0 | 4.2 | 4.8 | 4.9 |
| Institutions | 4.7 | 3.4 | 3.9 | 4.9 | 3.4 | 6.2 | 4.2 | 3.9 | 4.3 | 4.4 |
| Infrastructure | 4.4 | 2.8 | 3.0 | 5.3 | 2.9 | 6.4 | 4.7 | 2.9 | 4.1 | 4.2 |
| Macroeconomy | 6.3 | 4.4 | 4.9 | 5.4 | 5.2 | 5.7 | 5.4 | 4.9 | 5.3 | 5.3 |
| Health and primary education | 5.8 | 4.3 | 5.3 | 6.1 | 5.2 | 6.2 | 5.6 | 5.3 | 5.5 | 5.6 |
| **Efficiency enhancers** | 3.8 | 3.3 | 4.3 | 4.8 | 4.0 | 5.5 | 4.5 | 3.9 | 4.3 | 4.5 |
| Higher education and training | 3.9 | 2.7 | 3.9 | 4.6 | 4.1 | 5.6 | 4.3 | 3.4 | 4.1 | 4.3 |
| Goods market efficiency | 3.9 | 4.0 | 4.7 | 5.0 | 4.1 | 5.8 | 4.5 | 4.2 | 4.5 | 4.7 |
| Labor market efficiency | 4.9 | 4.7 | 4.6 | 4.9 | 4.1 | 5.7 | 5.0 | 4.5 | 4.8 | 4.8 |
| Financial market sophistication | 4.1 | 3.0 | 4.5 | 5.4 | 4.1 | 5.9 | 4.6 | 4.1 | 4.5 | 4.8 |
| Technological readiness | 3.6 | 2.4 | 3.0 | 4.4 | 3.3 | 5.6 | 3.4 | 3.1 | 3.6 | 3.8 |
| Market size | 2.4 | 3.0 | 5.1 | 4.7 | 4.5 | 4.4 | 4.9 | 4.4 | 4.2 | 4.7 |
| **Innovation and sophistication factors** | 3.3 | 3.0 | 4.0 | 4.6 | 3.7 | 5.2 | 3.9 | 3.6 | 3.9 | 4.2 |
| Business sophistication | 3.8 | 3.4 | 4.5 | 5.0 | 4.3 | 5.3 | 4.4 | 3.8 | 4.3 | 4.6 |
| Innovation | 2.9 | 2.7 | 3.4 | 4.3 | 3.0 | 5.1 | 3.4 | 3.3 | 3.5 | 3.8 |

(Continued)

**(c) 2006-2007 (125 economies)**

| | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam | Average (6) |
|---|---|---|---|---|---|---|---|
| *Ranking (out of 125 economies)* | | | | | | | |
| **GCI** | 50 | 26 | 71 | 5 | 35 | 77 | 44 |
| **Basic requirements** | 68 | 24 | 84 | 2 | 38 | 71 | 48 |
| Institutions | 52 | 18 | 88 | 4 | 40 | 74 | 46 |
| Infrastructure | 89 | 23 | 88 | 6 | 38 | 83 | 55 |
| Macroeconomy | 57 | 31 | 62 | 8 | 28 | 53 | 40 |
| Health and primary education | 72 | 42 | 82 | 20 | 84 | 56 | 59 |
| **Efficiency enhancers** | 50 | 26 | 63 | 3 | 43 | 83 | 45 |
| Higher education and training | 53 | 32 | 63 | 10 | 42 | 90 | 48 |
| Market efficiency | 27 | 9 | 57 | 4 | 31 | 73 | 34 |
| Technological readiness | 72 | 28 | 61 | 2 | 48 | 85 | 49 |
| **Innovation factors** | 41 | 22 | 66 | 15 | 36 | 81 | 44 |
| Business sophistication | 42 | 20 | 59 | 23 | 40 | 86 | 45 |
| Innovation | 37 | 21 | 79 | 9 | 33 | 75 | 42 |
| *Score (out of 7)* | | | | | | | |
| **GCI 2006-2007** | 4.3 | 5.1 | 4.0 | 5.6 | 4.6 | 3.9 | 4.6 |
| **Basic Requirements** | 4.4 | 5.4 | 4.2 | 6.1 | 5.0 | 4.4 | 4.9 |
| Institutions | 4.0 | 5.1 | 3.4 | 5.9 | 4.4 | 3.6 | 4.4 |
| Infrastructure | 2.7 | 5.1 | 2.7 | 6.2 | 4.4 | 2.8 | 4.0 |
| Macroeconomy | 4.5 | 5.0 | 4.4 | 5.7 | 5.1 | 4.6 | 4.9 |
| Health and primary education | 6.4 | 6.6 | 6.2 | 6.8 | 6.1 | 6.4 | 6.4 |
| **Efficiency enhancers** | 4.1 | 4.9 | 3.9 | 5.6 | 4.3 | 3.4 | 4.4 |
| Higher education and training | 4.3 | 4.8 | 4.0 | 5.6 | 4.4 | 3.4 | 4.4 |
| Market efficiency | 4.9 | 5.2 | 4.2 | 5.6 | 4.8 | 4.1 | 4.8 |
| Technological readiness | 3.2 | 4.6 | 3.3 | 5.7 | 3.7 | 2.8 | 3.9 |
| **Innovation factors** | 4.1 | 4.9 | 3.6 | 5.1 | 4.2 | 3.3 | 4.2 |
| Business sophistication | 4.5 | 5.3 | 4.2 | 5.2 | 4.6 | 3.5 | 4.6 |
| Innovation | 3.6 | 4.5 | 3.1 | 5.0 | 3.7 | 3.1 | 3.8 |

Data source: World Economic Forum (2006, 2008, 2009)

Notes: average is calculated for a comparison among factors.

Similarly to the rankings in *Doing Business*, the overall rankings in 2009-2010/2008-2009 are high for Singapore (3rd/5th out of 133/134), Malaysia (24th/21st), and Thailand (36th/34th), while they are particularly low for new ASEAN countries and the Philippines, indicating unfavorable business environments in these countries: Cambodia (110th/109h), the Philippines (87th/71st), and Vietnam (75th/70th) (Table 2.3 (a)/(b)). When the overall rankings in 2009-2010/2008-2009 are compared with those in 2006-2007 (Table 2.3 (c)), they are more or less similar to each other, again except for the Philippines; the ranking worsened by more than 10places,from 71st to 87th.

Based on the average figures shown in the right hand columns in Table 2.3, basic requirements such as institutions, infrastructure, and health and primary education are still not well developed at the sub-category level in ASEAN6 countries compared to the rest of the world. More precisely, the factors regarded as reducing competitiveness in many countries in Table A.2.1 involve various public institutions, such as judicial independence, efficiency of legal framework, infrastructure (particularly the quality of the electricity supply), and tuberculosis prevalence, various market distortions concerning such matters as tertiary education, number of procedures and time required for starting a business, financial market sophistication including soundness of banks, and technological readiness such as the availability of latest technologies and broadband internet subscribers. Improving these factors would make the countries in the region more competitive, increasing their attractiveness for investors.

Table 2.4, compiled from the *Global Competitiveness Report*, shows the problematic factors involved in doing business in the countries concerned. The figures in the upper portion of the table indicate the percentage of respondents reporting the presence of the problem for the item concerned, while those in the lower portion indicate the ranking of the severity of the problem for the 15/14 items in each economy. In the upper portion of the table, the figures registering 10 percent or above are highlighted.[5] When the results for 2009-2010 are compared with those for 2008-2009/2006-2007, corruption, inadequate supply of infrastructure, and inefficient government bureaucracy are still recognized as relatively serious problems in many ASEAN countries. Additionally, tax regulation is identified as a relatively serious problem in many countries in 2008-2009, though it is not regarded as such in 2009-2010. Combined with the fact that access to financing has worsened, which probably reflects the global financial crisis starting in mid 2009, tax regulation became less serious in comparison. These results suggest that in addition to corruption, inadequate supply of infrastructure, and inefficient government bureaucracy, other factors such as tax regulation and access to financing have also been regarded as serious problems requiring improvement to facilitate business.

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[5] To construct this table, respondents were asked to select the five most problematic factors for doing business in the economy, from 15/14 factors listed in the table, and to to rank them from 1 (most problematic) to 5. The results were tabulated and weighted according to the ranking assigned by the respondents.

## Table 2.4. The Most Problematic Factors for Doing Business and Their Ranking for ASEAN

**(a) 2009-2010**

| | Brunei | Cambodia | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam | Average (8) | Average (6) |
|---|---|---|---|---|---|---|---|---|---|---|
| *Percent of responses* | | | | | | | | | | |
| Access to financing | 15.1 | 6.6 | 7.3 | 12.8 | 5.2 | 12.6 | 7.2 | 13.2 | 10.0 | 9.7 |
| Corruption | 1.6 | 23.9 | 8.7 | 10.4 | 24.3 | 0.8 | 11.0 | 5.1 | 10.7 | 10.1 |
| Crime and theft | 1.4 | 3.2 | 0.4 | 5.9 | 3.3 | 0.3 | 1.4 | 1.4 | 2.2 | 2.1 |
| Foreign currency regulations | 2.1 | 1.2 | 5.2 | 3.0 | 0.0 | 4.8 | 1.8 | 3.1 | 2.7 | 3.0 |
| Government instability/coups | 0.9 | 0.4 | 3.6 | 3.1 | 2.8 | 0.0 | 23.7 | 1.1 | 4.5 | 5.7 |
| Inadequate supply of infrastructure | 7.4 | 8.3 | 14.8 | 5.5 | 15.0 | 6.2 | 2.8 | 16.1 | 9.5 | 10.1 |
| Inadequately educated workforce | 10.7 | 9.6 | 4.7 | 8.0 | 0.7 | 11.9 | 6.7 | 13.1 | 8.2 | 7.5 |
| Inefficient government bureaucracy | 15.3 | 17.4 | 20.2 | 11.3 | 20.6 | 3.4 | 13.3 | 2.9 | 13.1 | 12.0 |
| Inflation | 1.9 | 5.9 | 6.1 | 4.4 | 0.6 | 20.3 | 2.0 | 11.5 | 6.6 | 7.5 |
| Policy instability | 2.3 | 6.4 | 9.0 | 8.5 | 12.6 | 1.1 | 15.4 | 7.6 | 7.9 | 9.0 |
| Poor public health | 0.0 | 2.4 | 0.5 | 1.0 | 2.4 | 0.4 | 0.2 | 2.0 | 1.1 | 1.1 |
| Poor work ethic in national labor force | 17.9 | 4.8 | 3.7 | 7.9 | 2.0 | 5.7 | 3.5 | 6.8 | 6.5 | 4.9 |
| Restrictive labor regulations | 20.5 | 2.2 | 7.1 | 6.4 | 2.4 | 15.1 | 1.9 | 2.8 | 7.3 | 6.0 |
| Tax rates | 1.1 | 2.4 | 1.9 | 6.9 | 3.3 | 7.9 | 2.9 | 5.0 | 3.9 | 4.7 |
| Tax regulations | 1.9 | 5.3 | 6.8 | 4.9 | 4.8 | 9.4 | 6.3 | 8.2 | 6.0 | 6.7 |
| *Ranking in each economy* | | | | | | | | | | |
| Access to financing | 12 | 11 | 11 | 15 | 11 | 13 | 11 | 14 | 12 | 13 |
| Corruption | 5 | 15 | 12 | 13 | 15 | 4 | 12 | 8 | 11 | 11 |
| Crime and theft | 4 | 6 | 1 | 7 | 9 | 2 | 2 | 2 | 4 | 4 |
| Foreign currency regulations | 8 | 2 | 7 | 2 | 1 | 7 | 3 | 6 | 5 | 4 |
| Government instability/coups | 2 | 1 | 4 | 3 | 7 | 1 | 15 | 1 | 4 | 5 |
| Inadequate supply of infrastructure | 10 | 12 | 14 | 6 | 13 | 9 | 6 | 15 | 11 | 11 |
| Inadequately educated workforce | 11 | 13 | 6 | 11 | 3 | 12 | 10 | 13 | 10 | 9 |
| Inefficient government bureaucracy | 13 | 14 | 15 | 14 | 14 | 6 | 13 | 5 | 12 | 11 |
| Inflation | 7 | 9 | 8 | 4 | 2 | 15 | 5 | 12 | 8 | 8 |
| Policy instability | 9 | 10 | 13 | 12 | 12 | 5 | 14 | 10 | 11 | 11 |
| Poor public health | 1 | 5 | 2 | 1 | 6 | 3 | 1 | 3 | 3 | 3 |
| Poor work ethic in national labor force | 14 | 7 | 5 | 10 | 4 | 8 | 8 | 9 | 8 | 7 |
| Restrictive labor regulations | 15 | 3 | 10 | 8 | 6 | 14 | 4 | 4 | 8 | 8 |
| Tax rates | 3 | 5 | 3 | 9 | 9 | 10 | 7 | 7 | 7 | 8 |
| Tax regulations | 7 | 8 | 9 | 5 | 10 | 11 | 9 | 11 | 9 | 9 |

**(b) 2008-2009**

| | Brunei | Cambodia | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam | Average (8) | Average (6) |
|---|---|---|---|---|---|---|---|---|---|---|
| *Percent of responses* | | | | | | | | | | |
| Access to financing | 14.7 | 8.9 | 4.4 | 6.2 | 1.8 | 14.7 | 7.4 | 10.6 | 8.6 | 7.5 |
| Corruption | 0.9 | 0.7 | 3.9 | 4.5 | 1.5 | 1.3 | 4.6 | 3.1 | 2.6 | 3.2 |
| Crime and theft | 2.1 | 3.6 | 1.3 | 5.5 | 5.9 | 9.4 | 3.5 | 3.9 | 4.4 | 4.9 |
| Foreign currency regulations | 0.0 | 2.8 | 0.1 | 0.0 | 0.1 | 0.6 | 0.6 | 0.6 | 0.6 | 0.3 |
| Government instability/coups | 19.1 | 2.2 | 9.7 | 5.9 | 2.4 | 10.3 | 1.2 | 1.9 | 6.6 | 5.2 |
| Inadequate supply of infrastructure | 2.1 | 24.5 | 10.7 | 14.5 | 23.9 | 0.1 | 10.3 | 9.0 | 11.9 | 11.4 |
| Inadequately educated workforce | 0.7 | 2.6 | 0.1 | 8.3 | 1.9 | 0.2 | 0.8 | 0.9 | 1.9 | 2.0 |
| Inefficient government bureaucracy | 2.4 | 5.0 | 5.0 | 6.5 | 8.7 | 0.8 | 13.0 | 8.2 | 6.2 | 7.0 |
| Inflation | 13.7 | 4.9 | 7.5 | 4.7 | 3.8 | 5.2 | 4.1 | 7.7 | 6.5 | 5.5 |
| Policy instability | 1.7 | 1.8 | 3.7 | 1.8 | 7.0 | 0.0 | 21.5 | 1.4 | 4.9 | 5.9 |
| Poor public health | 0.7 | 4.6 | 6.7 | 6.1 | 6.4 | 7.6 | 5.1 | 6.4 | 5.5 | 6.4 |
| Poor work ethic in national labor force | 4.5 | 8.9 | 16.4 | 5.4 | 13.1 | 5.9 | 5.2 | 16.5 | 9.5 | 10.4 |
| Restrictive labor regulations | 20.1 | 4.0 | 3.5 | 5.5 | 0.1 | 6.4 | 2.2 | 8.1 | 6.2 | 4.3 |
| Tax rates | 1.7 | 7.3 | 7.8 | 8.3 | 3.5 | 35.4 | 8.5 | 17.9 | 11.3 | 13.6 |
| Tax regulations | 15.6 | 18.3 | 19.3 | 16.7 | 19.7 | 2.2 | 12.1 | 3.7 | 13.5 | 12.3 |
| *Ranking in each economy* | | | | | | | | | | |
| Access to financing | 5 | 7 | 6 | 12 | 8 | 8 | 10 | 7 | 8 | 9 |
| Corruption | 8 | 1 | 3 | 2 | 1 | 14 | 4 | 4 | 5 | 5 |
| Crime and theft | 13 | 12 | 14 | 3 | 11 | 13 | 14 | 14 | 12 | 12 |
| Foreign currency regulations | 12 | 15 | 10 | 13 | 13 | 10 | 9 | 11 | 12 | 11 |
| Government instability/coups | 10 | 14 | 11 | 14 | 5 | 15 | 1 | 13 | 10 | 10 |
| Inadequate supply of infrastructure | 6 | 3 | 2 | 11 | 3 | 7 | 7 | 2 | 5 | 5 |
| Inadequately educated workforce | 4 | 4 | 9 | 6 | 12 | 2 | 6 | 3 | 6 | 6 |
| Inefficient government bureaucracy | 3 | 2 | 1 | 1 | 2 | 9 | 3 | 10 | 4 | 4 |
| Inflation | 11 | 5 | 5 | 4 | 9 | 1 | 5 | 1 | 5 | 4 |
| Policy instability | 7 | 6 | 8 | 5 | 4 | 11 | 2 | 5 | 6 | 6 |
| Poor public health | 15 | 11 | 15 | 15 | 15 | 12 | 15 | 15 | 14 | 15 |
| Poor work ethic in national labor force | 1 | 9 | 12 | 9 | 14 | 6 | 12 | 6 | 9 | 10 |
| Restrictive labor regulations | 2 | 13 | 4 | 8 | 10 | 3 | 13 | 12 | 8 | 8 |
| Tax rates | 9 | 10 | 13 | 10 | 7 | 4 | 11 | 9 | 9 | 9 |
| Tax regulations | 14 | 8 | 7 | 7 | 6 | 5 | 8 | 8 | 8 | 7 |

**(c) 2006-2007**

| | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam | Average (6) |
|---|---|---|---|---|---|---|---|
| *Percent of responses* | | | | | | | |
| Access to financing | 4.7 | 6.0 | 4.1 | 9.6 | 7.1 | 8.4 | 6.6 |
| Corruption | 4.6 | 8.0 | 21.5 | 0.3 | 14.7 | 18.8 | 11.3 |
| Crime and theft | 4.6 | 5.4 | 3.8 | 1.4 | 0.2 | 2.0 | 2.9 |
| Foreign currency regulations | 4.9 | 8.1 | 0.3 | 2.4 | 2.0 | 3.3 | 3.5 |
| Government instability/coups | 1.9 | 1.1 | 13.6 | 0.5 | 7.7 | 2.2 | 4.5 |
| Inadequate supply of infrastructure | 20.2 | 5.8 | 15.2 | 6.9 | 6.0 | 13.5 | 11.3 |
| Inadequately educated workforce | 8.1 | 6.7 | 0.8 | 15.9 | 10.2 | 9.5 | 8.5 |
| Inefficient government bureaucracy | 14.1 | 15.4 | 11.8 | 6.4 | 17.8 | 19.0 | 14.1 |
| Inflation | 6.0 | 7.5 | 2.1 | 8.0 | 4.3 | 2.2 | 5.0 |
| Policy instability | 14.0 | 6.4 | 15.3 | 3.4 | 13.9 | 0.9 | 9.0 |
| Poor public health | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Poor work ethic in national labor force | 1.6 | 6.0 | 1.1 | 8.8 | 2.8 | 6.9 | 4.5 |
| Restrictive labor regulations | 6.0 | 8.3 | 2.5 | 15.7 | 2.6 | 2.0 | 6.2 |
| Tax rates | 2.7 | 7.0 | 4.5 | 8.8 | 2.5 | 3.8 | 4.9 |
| Tax regulations | 10.5 | 8.3 | 3.7 | 11.9 | 8.2 | 7.7 | 8.4 |
| *Ranking in each economy* | | | | | | | |
| Access to financing | 9 | 11 | 7 | 4 | 7 | 5 | 7 |
| Corruption | 11 | 5 | 1 | 14 | 2 | 2 | 6 |
| Crime and theft | 10 | 13 | 8 | 12 | 14 | 12 | 12 |
| Foreign currency regulations | 8 | 4 | 14 | 11 | 13 | 9 | 10 |
| Government instability/coups | 13 | 14 | 4 | 13 | 6 | 10 | 10 |
| Inadequate supply of infrastructure | 1 | 12 | 3 | 8 | 8 | 3 | 6 |
| Inadequately educated workforce | 5 | 8 | 13 | 1 | 4 | 4 | 6 |
| Inefficient government bureaucracy | 2 | 1 | 5 | 9 | 1 | 1 | 3 |
| Inflation | 7 | 6 | 11 | 7 | 9 | 10 | 8 |
| Policy instability | 3 | 9 | 2 | 10 | 3 | 14 | 7 |
| Poor public health | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Poor work ethic in national labor force | 14 | 10 | 12 | 6 | 10 | 7 | 10 |
| Restrictive labor regulations | 6 | 2 | 10 | 2 | 11 | 12 | 7 |
| Tax rates | 12 | 7 | 6 | 5 | 12 | 8 | 8 |
| Tax regulations | 4 | 2 | 9 | 3 | 5 | 6 | 5 |

Data source: World Economic Forum (2006, 2008, 2009)

Note: From a list of the above 15/14 factors, respondents were asked to select the five most problematic for doing business in their economy and to rank them from 1 (most problematic) to 5. The results were tabulated and weighted according to the ranking assigned by the respondents. The weighted percentage of firms identified the factor as a problematic is expressed in the upper part of this table "percent of responses". Average is calculated for a comparison among factors. Average (8) and average (6) show average of eight countries and six countries who appear in (a) and (b), respectively.

The evaluation of the business environment and competitiveness of the ASEAN countries in this section suggests that reducing the complexity and time required for institutional procedures, increasing labor market flexibility (reducing the burden of labor regulations), and developing infrastructure are particularly important for improving the investment environment.

## 3. Assessment of FDI Policy Regimes, based on Legal Documents

This section assesses the FDI policy regimes in ASEAN countries using the information obtained from legal documents such as FDI Laws. In some cases supplementary information sources, such as FDI guides, are used. The first section describes the methodology used for the analysis and then the following section discusses the results of the analysis.

### 3.1. Methodology

Several studies have assessed the restrictiveness of FDI policies. Golub (2003) examined the restrictiveness of FDI for OECD countries in 1998/2000 by examining rules on foreign equity, screening and approval procedure, and other restrictions including those on boards of directors, movement of people, and input and operational restrictions. Golub found the United Kingdom the most open country and Iceland the least open country among 28 OECD member countries.

PECC (2002) evaluated FDI regimes of APEC economies by examining wide-ranging FDI rules on market access, examination procedures, most-favored-nation (MFN) treatment, profit repatriation, work permits, performance requirements, dispute settlement, investment incentives, and capital exports. PECC found Hong Kong to be the most open and Brunei the least open among 19 APEC sample economies. The PECC study shows that the FDI regimes of developing members are more restrictive compared to developed members.

We used a modified methodology adopted by Golub (2003). Our evaluation method is shown in Table 3.1. We evaluated the restrictiveness of FDI rules in six areas: foreign ownership or market access, national treatment, screening and approval procedure, board of directors and management composition, movement of investors, and performance requirement. Low scores indicate open FDI rules[6]. Different areas are given different weights. In most FTAs, restrictions are imposed on ownership and control of a local enterprise through a cap on foreign-owned equity. It is given a weight of 0.4 while restriction on national treatment is given a weight of 0.2 for the computation of the overall score. Meanwhile, other restrictions such as screening procedures, composition of management, entry of investors, and performance requirements are given 0.1 each. In this manner, this study avoided the limitations of Golub's analysis wherein some sectors received a score above 1, which is the highest

[6] We evaluated FDI rules by sectors, then aggregated them to obtain an overall score by giving equal weight. We used an 88 ISIC two-digit industry classification to analyze FDI rules, then aggregated these detailed results using equal weights

possible score for the degree of restrictiveness in his study. Our method has its own limitations. It can be subjected to random and arbitrary weight. However, this is assuaged by using standards on all restrictions and by careful analysis, in addition to comparison of the results of one country with another.

All in all, 21 sectors that include 88 ISIC two-digit subsectors were evaluated in this study.

**Table 3.1. Assessment of FDI Restrictions**

| | (Fully liberalized = 0) |
|---|---|
| Restriction on Ownership and Market Access (weight = 0.4) | |
| No foreign equity is allowed | 1 |
| 1-19 percent is allowed | 0.9 |
| Reservation on ownership and market access | 0.75 |
| 20-34 percent is allowed | 0.6 |
| 35-49 percent is allowed | 0.5 |
| 50-74 percent is allowed | 0.3 |
| 75-99 percent is allowed | 0.2 |
| No restriction but bound | 0.1 |
| Commercial presence is required | 0.1 |
| No restrictions | 0 |
| National Treatment (weight = 0.2) | |
| No national treatment | 1 |
| Reservation on national treatment | 0.75 |
| No restrictions | 0 |
| Screening and Approval (weight = 0.1) | |
| Objections in case the investment is contrary to national interest | 1 |
| Investment is required to show economic benefits before approval | 0.9 |
| Reservations for future limitations | 0.75 |
| Objections based on the size of investment | 0.5 |
| Prior or post notification | 0.1 |
| No restrictions | 0 |
| Board of Directors and Management Composition (weight = 0.1) | |
| All members of the management should be local | 1 |
| Reservations for future restrictions | 0.75 |
| Majority should be local | 0.5 |
| At least one is local | 0.25 |
| Should be locally license | 0.1 |
| No restrictions | 0 |
| Movement of investors (weight = 0.1) | |
| No entry | 1 |
| Less than one year | 0.9 |
| Reservations for further measures on entry | 0.75 |
| One to two years | 0.6 |
| Three to four years | 0.5 |
| More than four years but less than 10 | 0.2 |
| No restrictions | 0 |
| Performance requirements (weight = 0.1) | |
| Local contents | 0.25 |
| Others | 0.1 |

### 3.2. The Results

The results of our assessment are shown in Table 3.2. Overall scores for ASEAN9 countries range between 0.175 (Singapore) and 0.463 (Myanmar) with a simple average of 0.337. Other countries register the following scores in ascending order (from more open to more closed environment); the Philippines (0.237), Cambodia (0.242), Thailand (0.300), Vietnam (0.315), Indonesia (0.375), Brunei (0.394), Lao, PDR (0.428), Malaysia (0.438). As the scoring is undertaken in such a way that the low score indicates an open FDI policy regime, our results show that FDI policy regimes in Singapore, the Philippines, and Cambodia are relatively open, while those in Myanmar, Malaysia and Lao PDR are relatively closed.

**Table 3.2. Assessment of FDI Policy Regimes of ASEAN Countries**

| | Total score | Market access | National treatment | Screening & appraisal | Board of directors | Movement of investors | Performance requirement |
|---|---|---|---|---|---|---|---|
| **weight** | 1 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Brunei** | 0.394 | 0.243 | 0.795 | 0.434 | 0.590 | 0.180 | 0.180 |
| **Cambodia** | 0.242 | 0.140 | 0.183 | 0.622 | 0.000 | 0.750 | 0.117 |
| **Indonesia** | 0.375 | 0.364 | 0.198 | 0.789 | 0.308 | 0.546 | 0.255 |
| **Lao, PDR** | 0.428 | 0.392 | 0.410 | 0.608 | 0.250 | 0.793 | 0.245 |
| **Malaysia** | 0.438 | 0.320 | 0.833 | 0.250 | 0.397 | 0.562 | 0.227 |
| **Myanmar** | 0.463 | 0.378 | 0.401 | 0.921 | 0.399 | 0.714 | 0.284 |
| **Philippines** | 0.237 | 0.257 | 0.279 | 0.112 | 0.519 | 0.043 | 0.107 |
| **Singapore** | 0.175 | 0.197 | 0.143 | 0.154 | 0.356 | 0.074 | 0.091 |
| **Thailand** | 0.300 | 0.423 | 0.000 | 0.500 | 0.000 | 0.805 | 0.000 |
| **Vietnam** | 0.315 | 0.338 | 0.262 | 0.364 | 0.286 | 0.469 | 0.152 |
| **Average** | 0.339 | 0.305 | 0.350 | 0.475 | 0.310 | 0.494 | 0.194 |
| **Standard deviation** | 0.100 | 0.092 | 0.272 | 0.266 | 0.193 | 0.296 | 0.113 |

*Note:* See the main text for the explanation of the scoring system

*Source*: Authors' computation

Examining the average scores for the ASEAN countries by issue areas, one finds that ASEAN countries have restrictive FDI regimes in the areas of the movement of investors and the screening and appraisal procedures for FDI applications, as their average scores are similarly high at 0.494 and 0.475, respectively, compared to an overall average of 0.339. Having pointed out the problems with the movement of investors and screening and appraisal procedures for FDI applications in the ASEAN countries, it should be noted that there are wide variations in these scores among the ASEAN countries, reflecting a diversity in the seriousness of those problems among them, as shown by high standard deviations. Movement of investors is particularly restrictive in Thailand, Cambodia, and Myanmar, while screening and appraisal procedures are particularly restrictive in Myanmar, Indonesia, Cambodia and Lao, PDR. The lack of national treatment is a serious problem in Malaysia and Brunei. In Malaysia there are a number of cases where foreign companies are not treated equally with local companies. For example, foreign companies are only allowed to acquire land up to a certain amount. In several industrial sectors foreign companies are required to form joint ventures with local companies. In Brunei the government reserves the right to impose any restrictions with respect to national treatment. Restrictions on boards of directors and management composition are rather severe in Brunei and the Philippines, where the majority of board directors have to be local.

Let us examine the restriction on the right of establishment, or market access, which is considered to be the most important policy regarding inward FDI. Table 3.3 shows the results of our assessment of market access for the ASEAN countries by sector.

Before analyzing the restrictions on market access by country, we first look at restrictions on market access by sectors for ASEAN as a whole. The sector with the most restrictive market access regulation is found to be public administration and defense. Electricity, gas, steam and air conditioning supply, information and communications, and arts, entertainment, and recreation have quite restrictive regulation of market access. By contrast, market access regulation is rather relaxed in manufacturing and accommodation and food service activities. Turning to the market access restrictions by country, we find that tight restrictions are imposed in Thailand, Lao PDR, Myanmar, and Indonesia. In Thailand many sectors, except for manufacturing, set an upper limit to foreign equity ownership, while in Lao PDR, Myanmar and Indonesia, FDI is not allowed in several sectors. In Lao PDR, market access is not allowed in information and communication, and public administration, while in Myanmar market access is not allowed in the following sectors, information and communication, financial and insurance businesses, and public administration. In Indonesia, market access is very limited in real estate activities and public administration.

**Table 3.3. Assessment of Market Access in FDI Policies of ASEAN Countries**

| | Average | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **All sectors** | 0.305 | 0.243 | 0.140 | 0.364 | 0.392 | 0.320 | 0.378 | 0.257 | 0.197 | 0.423 | 0.338 |
| **A - Agriculture, forestry and fishing** | 0.270 | 0.10 | 0.10 | 0.40 | 0.50 | 0.10 | 0.45 | 0.35 | 0.00 | 0.50 | 0.20 |
| **B - Mining and quarrying** | 0.205 | 0.02 | 0.20 | 0.04 | 0.30 | 0.20 | 0.55 | 0.30 | 0.00 | 0.34 | 0.10 |
| **C - Manufacturing** | 0.116 | 0.05 | 0.10 | 0.21 | 0.27 | 0.13 | 0.09 | 0.10 | 0.00 | 0.16 | 0.05 |
| **D - Electricity, gas, steam and air conditioning supply** | 0.575 | 1.00 | 0.10 | 0.20 | 0.75 | 0.60 | 0.90 | 0.30 | 0.90 | 0.50 | 0.50 |
| **E - Water supply; sewerage, waste management and remediation activities** | 0.330 | 1.00 | 0.10 | 0.05 | 0.10 | 0.70 | 0.10 | 0.30 | 0.25 | 0.50 | 0.20 |
| **F - Construction** | 0.286 | 0.28 | 0.10 | 0.29 | 0.84 | 0.00 | 0.10 | 0.15 | 0.00 | 0.50 | 0.60 |
| **G - Wholesale and retail trade; repair of motor vehicles and motorcycles** | 0.238 | 0.00 | 0.10 | 0.23 | 0.20 | 0.30 | 0.10 | 0.05 | 0.10 | 0.50 | 0.80 |
| **H - Transportation and storage** | 0.418 | 0.20 | 0.10 | 0.60 | 0.42 | 0.36 | 0.80 | 0.50 | 0.20 | 0.50 | 0.50 |
| **I - Accommodation and food service activities** | 0.163 | 0.00 | 0.10 | 0.30 | 0.10 | 0.38 | 0.10 | 0.05 | 0.00 | 0.50 | 0.10 |
| **J - Information and communication** | 0.445 | 0.00 | 0.20 | 0.53 | 0.47 | 0.60 | 1.00 | 0.40 | 0.25 | 0.50 | 0.50 |
| **K - Financial and insurance activities** | 0.315 | 0.00 | 0.10 | 0.53 | 0.10 | 0.43 | 1.00 | 0.20 | 0.14 | 0.50 | 0.15 |
| **L - Real estate activities** | 0.380 | 0.00 | 0.75 | 1.00 | 0.10 | 0.75 | 0.10 | 0.50 | 0.10 | 0.50 | 0.00 |
| **M - Professional, scientific and technical activities** | 0.266 | 0.11 | 0.10 | 0.24 | 0.10 | 0.23 | 0.49 | 0.55 | 0.14 | 0.50 | 0.20 |
| **N - Administrative and support service activities** | 0.260 | 0.00 | 0.10 | 0.60 | 0.28 | 0.10 | 0.55 | 0.35 | 0.02 | 0.50 | 0.10 |
| **O - Public administration and defence; compulsory social security** | 0.770 | 1.00 | 0.10 | 1.00 | 1.00 | 0.60 | 1.00 | 0.50 | 1.00 | 0.50 | 1.00 |
| **P - Education** | 0.325 | 0.00 | 0.10 | 0.25 | 0.10 | 0.60 | 0.10 | 0.50 | 1.00 | 0.50 | 0.10 |
| **Q - Human health and social work activities** | 0.227 | 0.00 | 0.10 | 0.62 | 0.10 | 0.00 | 0.10 | 0.15 | 0.00 | 0.50 | 0.70 |
| **R - Arts, entertainment and recreation** | 0.419 | 0.25 | 0.10 | 0.56 | 1.00 | 0.65 | 0.10 | 0.15 | 0.00 | 0.38 | 1.00 |
| **S - Other service activities** | 0.177 | 0.33 | 0.10 | 0.00 | 0.40 | 0.00 | 0.10 | 0.00 | 0.03 | 0.50 | 0.30 |
| **T - Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use** | 0.120 | 0.00 | 0.10 | 0.00 | 1.00 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 |
| **U - Activities of extraterritorial organizations and bodies** | 0.105 | 0.75 | 0.10 | 0.00 | 0.10 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 |

*Note*: See the main text for the explanation of the scoring system

*Source*: Authors' computation

Concerning performance requirements, Thailand does not impose any such restrictions. Singapore imposes a minimum scale on ships owned by foreign investors. In Cambodia, foreign investors are required to provide adequate training to Cambodian employees, and to promote Cambodian staff to senior positions over time. In Lao PDR, local content requirements are imposed in several manufacturing sectors such as leather products and wood products. In Malaysia export targets, technology transfer and local content requirements are imposed in the manufacturing sector. In the Philippines export requirements are imposed for obtaining incentives, while preferences have to be given to local employees in the electricity sector. In Vietnam foreign firms have to comply with environment protection requirements.

Our analysis of FDI policy regimes for ASEAN revealed wide variations in the openness/restrictiveness of the regimes among them. The movement of investors, screening and appraisal are found to be serious impediments in several countries. As for the policy on market access, it is worth noting that services sectors such as information and communication are quite restrictive. Recognizing that service sectors occupy a large and important part of economic activity in ASEAN countries, provision of greater market access to foreign companies can contribute to an improvement of allocative and technical efficiency of these countries. A justified fear of market domination by competitive foreign companies should be dealt with appropriate competition policy.

## 4. Assessment of FDI Environments based on a Survey of Firms

This section analyzes the FDI environments of ASEAN countries by using the information obtained from a survey conducted on Japanese firms. First, we discuss the methodology used for the analysis and then undertake the analysis.

### 4.1. The Methodology and the Data used for the Analysis

We classify the problems and obstacles faced by Japanese firms operating in ASEAN countries into ten categories (Table 4.1). The ten categories are divided into two groups, one consisting of four categories of problems related to FDI liberalization and six categories of problems related to FDI facilitation. This classification, which has been proposed by Urata *et al.*(2007), is based on a literature survey and discussions among the members of a committee including representatives of APEC Business Advisory Council (ABAC) Japan, the Japan Machinery Center for Trade and Investment (JMC), the Ministry of Trade, Investment, and Industry (METI) Japan, and university professors (APEC Study Committee with JMC as the secretariat in 2007).

**Table 4.1. Ten Major Categories of issues to be solved for FDI liberalization and facilitation**

| | |
|---|---|
| FDI liberalization | |
| i | Restrictions on foreign entry |
| ii | Performance requirements |
| iii | Restrictions on overseas remittances and controls on foreign currency transactions |
| iv | Resttrictions on the movement of people and employment requirements |
| FDI facilitation | |
| v | Lack of transparency in policies and regulations concerning investment (institutional problems) |
| vi | Complicated and/or delayed procedures with respect to invement-related regulations (implementation problems) |
| vii | Insufficient protection of intellectual property rights |
| viii | Labor regulations and related practices excessively favorable to workers |
| ix | Underdeveloped infrastructure, shortages human resources, and insufficent invesment incentives |
| x | Restricted competition and price controls |

*Source*: Urata, *et al.* (2007)

The four categories of impediments concerning FDI liberalization are i) restrictions on foreign entry, ii) performance requirements, iii) restrictions on overseas remittances and controls on foreign exchange, and iv) restrictions on the movement of people and employment requirements.[7]

Category i) "restrictions on foreign entry", for instance, includes prohibited or restricted foreign entry into specific sectors, regulations on maximum foreign ownership ratios (foreign equity participation), joint venture requirements, minimum capital requirements, restricted forms of commercial presence (regulations on the forms of establishments), restrictions on land ownership by foreign-owned firms. Category ii) "performance requirements" includes local content requirements and export requirements/ technology transfer requirements linked with various FDI incentives. Category iii) "restrictions on overseas remittances and controls on foreign currency transactions" includes restrictions or difficulties in making overseas remittances, restrictions on the possession and use of foreign currencies, difficulties in access to/exchange of local currencies. The last category among impediments concerning FDI liberalization is iv) "restrictions on the movement of people and employment requirements", which includes difficulties in obtaining and/or renewing necessary visas for foreign representatives, and requirements on the employment of local people (or

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7 Category i) corresponds to 1.restrictions on foreign entry and 21.restrictions on foreign ownership of land in the JMC survey. Similarly, category ii) corresponds to 2.local content requirements, 3.export requirements, and 18.technology transfer requirements: category iii) 11.foreign remittances, 12.control of foreign exchange, and category iv) 16.employment in the JMC survey.

specific types of local people). All of these problems can certainly be impediments to new foreign entry or expansion of investment by existing foreign firms.

The six categories of impediments related to FDI facilitations are as follows: v) "lack of transparency in policies and regulations concerning investment (institutional problems)", vi) "complicated and/or delayed procedures with respect to investment-related regulations (implementation problems)", vii) "insufficient protection of intellectual property rights (IPRs)", viii) "labor regulations and related practices excessively favorable to workers", ix) "underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives", and x) "restricted competition and price controls".[8]

Categories v) "lack of transparency in policies and regulations concerning investment" and vi) "complicated and/or delayed procedures with respect to investment-related regulations" cover issues concerning various investment-related regulations in

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[8] Category v) corresponds to 5. regulations on policies of supporting industries, 7. implementing procedure for Foreign Capital Act, 8.issues of FDI hosting agencies, 9.regulations on export/import activities and customs clearance, 10.restrictions on activities in free trade zones (FTZs)/special economic zones (SEZs), 14.taxiation, 19.(industrial) standards and conformity, 22.issues of environmental pollution and waste disposal, 24.lack of legal regulations/sudden changes in regulations, and 26.others in the JMC survey. Note that some of the issues in these categories in the JMC survey are classified as those in category vi) when they are the issue of implementation. In addition, category vi) includes 4.regulations on withdrawal of operations and 23.inefficient administrative procedures of various regulations, in the JMC survey. Category vii) is composed of 17.problems of IPRs, category viii) consists of a part of 16.labor, the category ix) includes 6.diminished incentives for FDI, 13.finance, 16.labor (human capital-related), and 26.others (infrastructure-related), and category x) takes in 15.price control and 20.monopoly.

terms of institutional problems and implementation problems, respectively. Category v) "lack of transparency in policies and regulations concerning investment" is specifically concerned with sudden and/or frequent changes (without notification in advance), non-transparency, ambiguity in various investment-related regulations and lack of certain regulations, while category vi) "complicated and/or delayed procedures with respect to investment-related regulations" covers problems in implementing regulations on establishments, approval of foreign entry, taxation, customs clearance, withdrawal/reorganization of operations, arbitrary and/or inconsistent interpretation and implementation of various regulations, and other such matters. Examples of problems in categories vii) "insufficient protection of IPRs", viii) "labor regulations and related practices excessively favorable to workers", ix) "underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives", and x) "restricted competition and price controls" include the following: insufficient protection of IPRs and issues involving patents for category vii), non-modern labor regulations that are excessively favorable to workers, such as difficulty in firing workers, drastic/frequent changes in minimum wage levels, never decreasing wages, and restrictions on temporary workers for category viii), underdeveloped physical infrastructure and logistics, shortages of human resources such as management staff and engineers, and high turnover ratios for category ix), and oligopolistic market structure and monopolistic pricing for category x).

Most of the problems classified into categories iv) to x) are not necessarily discriminatory measures aimed at foreigners but are, rather, domestic problems inside the borders. These impediments could, however, directly and indirectly prevent potential investment from entering the economy. In other words, if a country solves these problems and improves the investment climate, it would receive a larger amount of investment than without such an improvement. Out of 10 major categories for FDI liberalization and facilitation, six are those concerning FDI facilitation. We emphasize the importance of implementing FDI facilitation measures, in addition to FDI liberalization measures, as will be discussed in the following section.

We conduct the analysis based on the methodology discussed above by using information obtained from the survey conducted by the Japan Machinery Center (JMC) for Trade and Investment. The JMC has annually collected and compiled the detailed survey, “Issues and Requests for Trade and Investment Activities by Country/Region”. This survey is based on responses to the “questionnaire on the problems in trade, investment, and production activities abroad,” conduced by the Japan Business Council for Trade and Investment Facilitation (JBCTIF). The JBCTIF has approximately 150 industry associations as members. The respondents to the questionnaire are its members involved in trade and FDI activities. We employ the 2009 version of the JMC survey (JMC survey 2009 hereafter), which was conducted from December 2008 to January 2009, with responses from 38 industry associations (in the case of ASEAN10). For a comparison, we also employ the results in Urata *et al*. (2007) , based on the 2005 version of this survey (JMC survey 2005 hereafter) and Urata and Ando (2009) based on the 2008 version (JMC survey 2008).

## 4.2. The Results

Table 4.2 summarizes the results of our analysis of the investment climate in 2009 in the ASEN10 countries, showing the number of incidents by category and country. Since the JMC survey deals with precisely the problems raised by firms in many industry associations which are members of the BCTIF, we first collect all the information on the countries concerned and identify the problems by country. We then classify these problems into 10 categories and collate them for all the countries, as shown in Table A.4.1 in the Appendix. Table 4.2 is constructed based on Table A.4.1. For a comparison, Table 4.3 presents the results of a similar analysis of the investment climate in 2008 and 2005.

**Table 4.2. Investment Climate in ASEAN 10 Economies in 2009: The Number of Incidents by Category and Country**

| | | Brunei | Cambodia | Indonesia | Laos | Malaysia | Myammar | Philippines | Singapore | Thailand | Viet Nam | Total | Share by category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (a) The number of Japanese affiliates in each country | | 1 | 10 | 659 | 6 | 759 | 10 | 419 | 991 | 1,577 | 332 | 4,764 | |
| (b) Issues to be solved for FDI liberalization and facilitation | | | | | | | | | | | | | |
| **FDI liberalization** | | **0** | **0** | **17** | **0** | **11** | **8** | **10** | **1** | **19** | **8** | **74** | **20%** |
| i) | Restrictions on foreign entry | 0 | 0 | 10 | 0 | 5 | 2 | 7 | 0 | 8 | 3 | 35 | 10% |
| ii) | Performance requirements | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 3 | 2 | 11 | 3% |
| iii) | Restrictions on overseas remittances and controls on foreign currency transactions | 0 | 0 | 2 | 0 | 1 | 6 | 2 | 0 | 5 | 2 | 18 | 5% |
| iv) | Restrictions on the movement of people and employment requirements | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 1 | 3 | 1 | 10 | 3% |
| **FDI facilitation** | | **0** | **14** | **51** | **4** | **44** | **20** | **42** | **6** | **50** | **58** | **289** | **80%** |
| v) | Lack of transparency in policies and regulations concerning investment (institutional problems) | 0 | 5 | 13 | 0 | 13 | 8 | 7 | 0 | 12 | 18 | 76 | 21% |
| vi) | Complicated and/or delayed procedures with respect to investment-related regulations (implementation problems) | 0 | 3 | 23 | 1 | 14 | 7 | 16 | 0 | 24 | 19 | 107 | 29% |
| vii) | Insufficient protection of intellectual property rights | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 1 | 1 | 8 | 2% |
| viii) | Labor regulations and related practices excessively favorable to workers | 0 | 0 | 2 | 0 | 5 | 0 | 10 | 3 | 3 | 4 | 27 | 7% |
| ix) | Underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives | 0 | 6 | 9 | 3 | 8 | 5 | 6 | 3 | 9 | 13 | 62 | 17% |
| x) | Restricted competition and price controls | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 9 | 2% |
| **Total** | | **0** | **14** | **68** | **4** | **55** | **28** | **52** | **7** | **69** | **66** | **363** | **100%** |

*Data source*: authors' calculation, based on Toyo Keizai (2008) for (a) the number of Japanese affilates abroad and JMC (2009) for (b) the issues to be solved for FDI.
*Note*: Japanese affiliates aborad are here defined as those with Japanese ownership of no less than 10%.

**Table 4.3. Investment Climate in ASEAN 10 Economies in 2008 and 2005 : The Number of Incidents by Category and Country**

| | | ASEAN10 in 2008 | | | | | | | | | | | ASEAN7 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | 2005 | | | | | | | | | |
| | | Brunei | Cambodia | Indonesia | Laos | Malaysia | Myanmar | Philippines | Singapore | Thailand | Viet Nam | Total | Share by category (%) | Brunei | Indonesia | Malaysia | Philippines | Singapore | Thailand | Viet Nam | Total (2005) | Total (2008) | Total (2009) |
| **FDI liberalization** | | **0** | **0** | **14** | **0** | **11** | **7** | **9** | **1** | **15** | **9** | **66** | **21%** | **0** | **10** | **17** | **11** | **3** | **16** | **16** | **73** | **59** | **66** |
| i) | Restrictions on foreign entry | 0 | 0 | 10 | 0 | 5 | 2 | 6 | 0 | 8 | 4 | 35 | 11% | 0 | 5 | 4 | 6 | 1 | 6 | 5 | 27 | 33 | 33 |
| ii) | Performance requirements | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 2 | 2 | 9 | 3% | 0 | 2 | 5 | 2 | 0 | 1 | 5 | 15 | 9 | 11 |
| iii) | Restrictions on overseas remittances and controls on foreign currency transactions | 0 | 0 | 0 | 0 | 1 | 5 | 2 | 0 | 3 | 2 | 13 | 4% | 0 | 1 | 4 | 1 | 0 | 3 | 4 | 13 | 8 | 12 |
| iv) | Restrictions on the movement of people and employment requirements | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 1 | 2 | 1 | 9 | 3% | 0 | 2 | 4 | 2 | 2 | 6 | 2 | 18 | 9 | 10 |
| **FDI facilitation** | | **0** | **16** | **28** | **4** | **33** | **21** | **48** | **6** | **45** | **49** | **250** | **79%** | **1** | **52** | **36** | **37** | **6** | **53** | **34** | **219** | **209** | **251** |
| v) | Lack of transparency in policies and regulations concerning investment (institutional problems) | 0 | 5 | 5 | 1 | 8 | 8 | 11 | 0 | 14 | 12 | 64 | 20% | 1 | 14 | 10 | 10 | 1 | 14 | 6 | 56 | 50 | 63 |
| vi) | Complicated and/or delayed procedures with respect to investment-related regulations (implementation problems) | 0 | 5 | 11 | 1 | 10 | 7 | 16 | 0 | 20 | 18 | 88 | 28% | 0 | 21 | 14 | 12 | 0 | 24 | 14 | 85 | 75 | 96 |
| vii) | Insufficient protection of intellectual property rights | 0 | 0 | 2 | 0 | 3 | 0 | 3 | 0 | 2 | 1 | 11 | 3% | 0 | 4 | 3 | 1 | 0 | 2 | 2 | 12 | 11 | 8 |
| viii) | Labor regulations and related practices excessively favorable to workers | 0 | 0 | 2 | 0 | 5 | 0 | 10 | 3 | 3 | 4 | 27 | 9% | 0 | 3 | 5 | 6 | 3 | 3 | 2 | 22 | 27 | 27 |
| ix) | Underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives | 0 | 6 | 6 | 2 | 7 | 5 | 8 | 3 | 5 | 11 | 53 | 17% | 0 | 8 | 4 | 8 | 2 | 9 | 8 | 39 | 40 | 48 |
| x) | Restricted competition and price controls | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 7 | 2% | 0 | 2 | 0 | 0 | 0 | 1 | 2 | 5 | 6 | 9 |
| **Total** | | **0** | **16** | **42** | **4** | **44** | **28** | **57** | **7** | **60** | **58** | **316** | **100%** | **1** | **62** | **53** | **48** | **9** | **69** | **50** | **292** | **268** | **317** |

Data source: Urata, Ando, and Ito (2007), Urata and Ando (2009), and Table 4.1.

Four points should be kept in mind in interpreting these results. First, some problems can be classified into different categories from those in Table A.4.1. Some may be classified into two or more categories. In constructing Table A.4.1, such problems are classified into the most relevant categories in our classification.

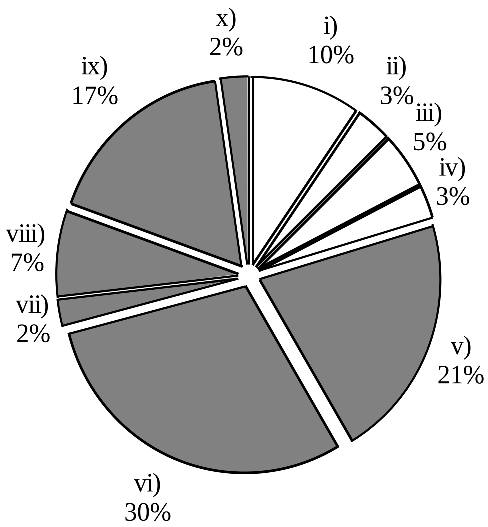
Second, the number of incidents in the tables indicates the presence of direct and indirect barriers to FDI (at least those identified). It does not, however, directly imply the degree of seriousness of the barriers distorting investment decisions.

Third, there is a possible bias in the identification of the problems in that the number of incidents tends to be high in countries where a large number of FDI projects are undertaken. As mentioned above, the respondents to the questionnaire on which JMC survey is based are those having trade with and/or investment in the countries concerned. Therefore, the countries in which Japanese firms are more active in trade and investment or those to which Japanese firms pay considerable attention as new investment locations, may tend to have a larger number of incidents since they are more likely to face various problems through their operations (Table 4.2). At the same time, the countries with fewer problems identified here do not necessarily receive a large amount of investment. The countries with a smaller number of Japanese firms involved may have a larger number of issues, in practice, than those identified here if firms were not able to enter those countries due to impediments, and the actual investment climate was not known. We will consider this point in interpreting the results for the individual countries below.

Fourth, most problems identified are those related to manufacturing activities. Since the major activity of most respondents is manufacturing, impediments to FDI in non-manufacturing sectors might be underestimated.

Table 4.2 and Figure 4.1 give an overall picture of direct and indirect impediments to investment in ASEAN10. Various sorts of indirect barriers to FDI exist in the region: 80 percent of the total problems identified (287 out of 362) are concerned with FDI facilitation. This finding indicates that there is plenty of room to improve FDI facilitation in order to promote FDI in ASEAN. In particular, more than half the problems fall into two categories v) institutional problems (lack of transparency in policies and regulations on investment) and vi) implementation problems (complicated and/or delayed procedures with respect to investment-related regulations; these account for 21 percent and 30 percent of the total incidents, respectively. Although neither institutional nor implementation problems are necessarily discriminatory against foreign firms, as discussed above, they need to be resolved to promote investment activity in the region.

**Figure 4.1. Decomposition of the incidents into 10 categories: ASEAN 10 in 2009**




*Data source*: Table 4.2.

*Note*: i)to iv) indicates four categories for FDI liberalization and v) to x) indicates six categories for FDI facilitation. Figures express shares of each category. See Table 4.1. for 10 categories.

The major problems identified in many countries for category v) are underdevelopment, lack of transparency, ambiguity, sudden changes, frequent changes, and uncertainty of various legal regulations and institutions, particularly those concerning taxation, investment incentives, safety and environmental standards and conformity, and financial markets, including exchange rates. The major problems for category vi) are complexity, delay, difficulty, and inefficiency of various administrative procedures, arbitrary interpretation in implementing regulations, corruption, smuggling, particularly complicated customs clearance procedures, delayed, difficult, inefficient, and complicated procedures for visa application and renewal, import tariff reimbursement/exemption, value-added tax exemption (including non-implementation) procedures, taxation, and withdrawal of business, arbitrary and/or inconsistent interpretation and implementation of safety certification, customs clearance, and arbitrary tax collection.[9]

Categories v) and vi) are followed by another category classified under FDI facilitation, category ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (17 percent of total incidents). It suggests that an access to necessary infrastructure, human resources, and investment incentives is also an important factor for firms in making the decision to entering a new country or expand operations in the host country. Major problems in category ix) are as follows: difficulty in hiring and securing human resources due to shortages of management staff and engineers, high turnover ratios, underdevelopment of industrial

[9] Delays in procedures are sometimes a result of their complicated nature.

infrastructure such as electric power, paved roads and transportation, and ports, insufficient investment incentives for the development of supporting industries, and immaturity of financial markets.

Categories other than v), vi), and ix) are arranged in descending order in terms of the percentage of the total number of incidents: category i) restrictions on foreign entry (10 percent), category viii) labor regulations and related practices excessively favorable to workers (7 percent), category iii) restrictions on overseas remittances and controls on foreign currency transactions (5 percent), category ii) performance requirements (3 percent) category iv) restrictions on the movement of people and employment requirement (3 percent), category vii) insufficient protection of IPRs (2 percent) and category x) restricted competition and price controls (2 percent). Although relatively low percentages for the categories for FDI liberalization imply that issues involving direct barriers to FDI (problems preventing FDI liberalization) are not so serious as those involving indirect barriers to FDI (problems preventing FDI facilitation) in the region, they are critical impediments in some low-income countries.

Major problems for category i) include prohibition of or restrictions on foreign entry (for specific sectors), restrictions on foreign ownership ratios, joint venture requirements (with specified business partners), and restrictions on foreign ownership of land. The problems for category viii) include difficulty in firing workers, wage-related issues such as rapidly rising wage levels, dramatic increases in minimum wage levels, and no allowance for lowering wage levels, and labor regulations and related practices that are excessively favorable to workers. The problems for category iv) include a nationality requirement for directors, restrictions on hiring foreigners including requirements of hiring local people (or specific types of local people), and difficulty and tightened issuance conditions in obtaining and/or renewing visas. The problems for category vii) include widespread counterfeiting of goods and pirated copying due to insufficient protection of IPRs, lack of intellectual property rights treaties, and infringements of trademark rights and patents. Those for category ii) include local content requirements and their strengthening, and investment incentives linked with export requirements, technological transfer requirements, and hiring local people. Those for category iii) include restrictions on overseas remittances and restrictions on the amounts, payment by, and use of foreign currencies. Those for category x) include monopolistic energy supply and discriminatory raising of its prices, and discriminatory pricing for loads at ports.

To capture changes in the investment climate in ASEAN countries, let us compare the patterns of pervasiveness of the identified problems in 2009, with those in 2005 provided by Urata *et al.*(2007) and those in 2008 provided by Urata and Ando (2009). ASEAN countries available for a comparison between 2009/2008 and 2005 are composed of seven countries that are the members both of ASEAN and APEC. Table 4.3 presents the results for the investment climate in 2008 in ASEAN10 and that in 2005 in ASEAN7: it shows the number of incidents by category and country. As the figure suggests, ASEAN7 as a whole saw a decline in the number of the issues directly preventing FDI, while it saw an increase in the number of issues indirectly preventing FDI: the number of incidents drops from 73 to 66 for FDI liberalization, though the number of incidents rises from 219 to 251 for FDI facilitation. In particular, issues due to complicated and/or delayed procedures with respect to investment-related regulations (implementation problems) increase from 85 to 96. This suggests that ASEAN countries explicitly improved their investment climate, but at the same time, more and more indirect barriers to FDI emerged, partly reflecting more active and deepening operations by Japanese firms in ASEAN countries than before, who are therefore more likely to face various problems through their operations.

Wide variations among the ASEAN countries, however, do exit. Although we cannot strictly conduct a comparative analysis among the countries due to the nature of the survey, the tables provide several interesting findings. First, various problems have prevailed in Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. Second, among those five countries, Indonesia (from 62 to 67), the Philippines (from 48 to 53), and Vietnam (from 50 to 66) have increased in the total number of issues by five or above. In particular, in the Philippines and Vietnam, countries recently attracting new FDI, the number of incidents increased substantially in categories for institutional problems, and implementation problems for investment-related policies and regulations and labor regulations, and practices excessively favorable to workers. Third, Indonesia and Thailand have increased in the number of issues identified in categories for FDI liberalization and decreased in the number for FDI facilitation, while the opposite is true for Malaysia. The Philippines and Vietnam are unchanged or have increased in both categories for FDI liberalization and facilitation.

To sum up, ASEAN economies as a whole tend to have improved the explicit investment climate as the number of the incidents revealing problems preventing FDI directly declined in so far as FDI liberalization is concerned. Direct barriers to FDI, however, still remain. Further efforts to reduce them by ASEAN countries are necessary, if they want to attract FDI. At the same time, the reduction of indirect barriers to FDI or the promotion of FDI facilitation is also indispensable, as the increasing number of issues identified in categories for FDI facilitation suggests. Particularly important areas for improvement include institutional problems, complicated and delayed procedures, underdeveloped infrastructure, inflexible labor market conditions (such as difficulty in hiring and firing workers and burdensome labor regulations and wage-related issues), and problems involving taxation regulations (including double taxation problems due to lack of double taxation treaties). As mentioned above, further indirect barriers to FDI have tended to emerge, partly reflecting more active and deepening operations by Japanese firms in ASEAN countries than before, who are therefore more likely to face various problems because of their operations. Thus the increasing number does not necessarily indicate the implementation of new barriers. However, such a growing number clearly implies that further efforts to improve the investment climate through various facilitation measures are expected.

**Discussion by country**

In the following, we briefly discuss major problems by country.

**Brunei (0 incident, 1 Japanese affiliate)**

For Brunei, no problems are identified in JMC Survey 2009, though one problem was identified in JMC Survey 2005 in category v) lack of transparency in policies and regulations concerning investment: ambiguity of government procurement procedures. It should be noted that few Japanese affiliates operate in Brunei, leading to low probability of incidents.[10]

**Cambodia (14 incidents, 10 Japanese affiliates)**

The categories with issues identified are v) lack of transparency in policies and regulations concerning investment (5),[11] vi) complicated and/or delayed procedures with respect to investment-related regulations (3), and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (6). The examples include underdevelopment, ambiguity, and lack of transparency of various legal regulations and institutions for category v), complexity of administrative

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10 In Brunei, some non tariff measures (NTMs) are applied to many tariff lines, including technical measures for food industries, automatic licensing measures and import quotas for machinery industries, and automatic and non-automatic licensing measures for chemical and wooden industries. These measures may influence the investment climate indirectly. See Ando (2009) and Ando and Obashi (2009) for an analysis of NTMs, using frequency ratios of NTMs by type and industry.

11 The number of incidents is shown in parenthesis.

procedures of customs clearance, arbitrary interpretation in implementing customs and taxations, and corruption for category vi), inadequate infrastructure such as electricity supply, road and traffic, and telecommunication, and underdevelopment of financial markets for category ix).

**Indonesia (68 incidents, 659 Japanese affiliates)**

Major categories are vi) complicated and/or delayed procedures with respect to investment-related regulations (23), v) lack of transparency in policies and regulations concerning investment (13), i) restrictions on foreign entry (10), and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (9). While the number of incidents slightly declined in the categories concerning FDI facilitation from 52 in 2005 to 50 in 2009, the number of issues increased in those relating to FDI liberalization from 10 in 2005 to 14 in 2008 and 17 in 2009. As a result, the total number of incidents slightly increased from 62 in 2005 to 67 in 2009. One should note that the number of incidents of restrictions on foreign entry, which is one of the categories for FDI liberalization, increased from 5 to 10. Such a change seems to have been caused by the introduction of a more restrictive "new negative list" (in effect since July 2007) which specifies the sectors in which no foreign entry is allowed, as well as sectors subject to certain conditions for foreign equity participation, particularly in the service sectors. Examples include complexity, delay, and inefficiency of various administrative procedures, arbitrary interpretation in implementing regulations, and corruption under category vi), underdevelopment, ambiguity, and sudden and frequent changes of various legal regulations and institutions under category v), restrictions on foreign ownership ratios in specific sectors mainly in services sectors and joint venture requirements under category i), and insufficient infrastructure under category ix).

**Lao PDR (4 incidents, 6 Japanese affiliates)**

The categories with issues identified are vi) complicated and/or delayed procedures with respect to investment-related regulations (1) and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (3). Examples include delayed procedures for customs clearance under category vi) and inadequate infrastructure such as road and traffic, and underdevelopment of financial markets under category ix).

**Malaysia (55 incidents, 759 Japanese affiliates)**

The number of incidents increased in categories for FDI facilitation, mainly in categories covering institutional and implementation problems for investment-related regulations. As a result, the total number of incidents slightly increased from 53 to 55 without change in the number of issues in categories for FDI liberalization. The major categories are vi) complicated and/or delayed procedures with respect to investment-related regulations (14), v) lack of transparency in policies and regulations concerning investment (13), and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (8). Examples include complexity, delays, and difficulty of administrative procedures and arbitrary interpretation in implementing regulations under category vi), lack of transparency and instability of regulations and taxation issues under category v), and difficulty in hiring and securing human resources due to shortages of management staff and engineers, high turnover ratios, and issues involving investment incentives, and inadequate infrastructure such as electricity supply and road and traffic under category viii).

**Myanmar (28 incidents, 10 Japanese affiliates)**

The total number of incidents did not change from 2008 to 2009. The major categories are v) lack of transparency in policies and regulations concerning investment (8), vi) complicated and/or delayed procedures with respect to investment-related regulations (7), iii) restrictions on overseas remittances and controls on foreign currency transactions (6), and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (5). The examples are underdevelopment and ambiguity of legal systems, and regulations such as the double exchange rates regime, double taxation due to lack of tax treaties, and taxation under category v), complexity and delay of administrative procedures such as customs clearance and overseas remittances under category vi), ambiguity and strengthened regulations on overseas remittances and various controls on foreign currency transactions under category iii), and underdevelopment or lack of infrastructure such as electricity supply, ports, and airports under category ix).[12]

**The Philippines (53 incidents, 419 Japanese affiliates)**

The number of incidents in the Philippines increased in categories for FDI facilitation from 37 to 42, particularly due to a growing number of issues related to implementation problems for investment-related policies and regulations and labor regulations and practices excessively favorable to workers. Consequently, the total number of incidents increased from 48 to 53, though the number of incidents did not change in categories for FDI liberalization as a whole. The major categories are vi) complicated and/or delayed procedures with respect to investment-related regulations (16), viii) labor regulations and related practices excessively favorable to workers (10), i) restrictions on foreign entry (8), v) lack of transparency in policies and regulations concerning investment (7), and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (6). The issues in the Philippines are spread widely across many categories: complexity, delays, and inefficiency of administrative procedures, arbitrary interpretation in implementing regulations, and corruption under category vi), various labor restrictions under category viii), a restrictions on foreign entry into specific sectors under category i), ambiguity, sudden and frequent changes of regulations and standards and conformity issues under category v), and high turnover ratios, underdeveloped infrastructure such as electricity

[12] See Ando (2009) for multiple exchange rate regimes in Myanmar.

and road and traffic, and insufficient incentives for foreign investment and supporting industries under category ix).

**Singapore (7 incidents, 991 Japanese affiliates)**

The categories with the largest number of incidents, although they are very few, for Singapore are viii) labor regulations and related practices excessively favorable to workers (3) and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (3). The issues reflect rapid increases in wage levels, the increasingly heavy burden of employee pensions, the burden of educational funding, and difficulty in hiring and securing human resources due to shortages of management staff and engineers, and high turnover ratios.

**Thailand (68 incidents, 1577 Japanese affiliates)**

Thailand is the country where the number of reporting Japanese affiliates is the largest among ASEAN countries, and thus it potentially receives many requests to improve its investment climate. The total number of incidents slightly dropped from 69 to 68. While the number of incidents declined in categories for FDI facilitation from 53 to 49, the number increased in categories for FDI liberalization from 16 to 19. As a result, the total number of incidents is more or less the same for 2005 and 2009. The major categories recording the incidents are vi) complicated and/or delayed procedures with respect to investment-related regulations (24), v) lack of transparency in policies and regulations concerning investment (12), i) restrictions on foreign entry

(8), and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (8). Examples include complexity and delays in administrative procedures and arbitrary interpretation in implementing regulations under category vi), underdevelopment and lack of transparency of various regulations and taxation issues under category v), restrictions on foreign entry under category i), and high turnover ratios and inadequate infrastructure under category ix).

**Vietnam (66 incidents, 332 Japanese affiliates)**

Vietnam has been active in hosting FDI in recent years, and thus an increasingly large number of issues are likely to be reported; the total number of incidents gradually increased from 50 in 2005 to 58 in 2008 and 66 in 2009. The number of incidents noticeably increased in categories for FDI facilitation from 34 to 58, particularly due to a growing number of issues in terms of institutional problems and implementation problems for investment-related policies and regulations, and underdeveloped infrastructure and shortage of human resources. Consequently, the total number of incidents increased, though the number declined in categories for FDI liberalization as a whole from 16 to 8. Major categories registering incidents are vi) complicated and/or delayed procedures with respect to investment-related regulations (19), v) lack of transparency in policies and regulations concerning investment (18), and ix) underdeveloped infrastructure, shortages of human resources, and insufficient investment incentives (13). The examples are complexity and delay of administrative procedures and arbitrary implementation of customs clearance under category vi), underdevelopment, ambiguity, and sudden changes in various regulations under category v), and underdeveloped infrastructure and difficulty in hiring and securing human resources due to shortages of management staff and engineers under category ix).

## 5. Concluding Remarks and Policy Recommendations

Our analysis of the FDI climates of the ASEAN countries revealed that impediments to FDI are found not only in the policies but also in their implementation and enforcement. As for the openness/restrictiveness of FDI policies, we found wide variations among the countries and sectors. One of the most important findings of our study is the importance of impediments concerning movement of investors, and the screening and appraisal procedures related to FDI applications. The impediments concerning screening and appraisal concern not only the rules or policies but also the practices in the forms of lack of transparency and complicated/delayed processing.

Our findings indicate the need for further liberalization of FDI policies and promotion of facilitation measures for ASEAN countries in order to successfully attract FDI. In order to achieve these goals, we would like to make several policy recommendations. First, in order to promote FDI policy liberalization, the ASEAN countries should use various existing frameworks, such as WTO/GATT's TRIMs agreement, BITs, FTAs, and other legal frameworks. In particular, ASEAN should use the ASEAN Comprehensive Investment Agreement (ACIA). Second, to overcome obstacles concerning FDI facilitation, the ASEAN countries should actively use various cooperation programs with developed countries to improve human resources engaged in the implementation and enforcement of FDI policies. Possible multilateral and regional sources of technical assistance in this area may be UNCTAD, the OECD, and ERIA. Third, monitoring of the achievement of FDI liberalization and facilitation has to be emphasized, in order to achieve a freer FDI environment. In this regard, a monitoring mechanism should be established in ASEAN, if it has not been established yet, or in ERIA. Finally, firm surveys on foreign companies from various countries, in addition to those from Japan which are utilized in our study, should be conducted to identify FDI impediments.

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Table A2.1 GCI components and notable competitive disadvantages

| | | 2009-2010 | | | | | | | | 2008-2009 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Brunei | Cambodia | Indonesia | Malaysia | Philippines | Singapore | Thailand | Viet Nam | Brunei | Cambodia | Indonesia | Malaysia | Philippines | Singapore | Thailand | Viet Nam |
| **Overall GCI ranking** | | 32 | 110 | 54 | 24 | 87 | 3 | 36 | 75 | 39 | 109 | 55 | 21 | 71 | 5 | 34 | 70 |
| **Basic requirements** | | | | | | | | | | | | | | | | | |
| 1. Institutions | | | | | | | | | | | | | | | | | |
| *Public institutions* | | | | | | | | | | | | | | | | | |
| Property rights | | | | | | | | | | | | | | | | | |
| 1.01 | Property rights | 49 | 108 | 81 | 40 | 97 | | 73 | 66 | 62 | 118 | 117 | 38 | 92 | | 61 | 75 |
| 1.02 | Intellectual property protection | 51 | 103 | 67 | 37 | 98 | | 77 | 93 | 52 | 110 | 102 | 33 | 89 | | 55 | 94 |
| Ethics and corruption | | | | | | | | | | | | | | | | | |
| 1.03 | Diversion of publics funds | | 98 | 59 | 48 | 122 | | 63 | 82 | | 92 | 68 | 39 | 117 | | 56 | 84 |
| 1.04 | Public trust and politicians | | 59 | 52 | 33 | 130 | | 71 | | | 70 | 59 | | 123 | | 64 | |
| Undue influence | | | | | | | | | | | | | | | | | |
| 1.05 | Judicial independence | 46 | 111 | 66 | 53 | 94 | 19 | 54 | 68 | 54 | 118 | 80 | 47 | 83 | 15 | 53 | 75 |
| 1.06 | Favoritism in decisions of government officials | 32 | 71 | | 37 | 128 | | 66 | 57 | | 87 | | 28 | 117 | | 49 | 70 |
| Government inefficiency (red tape, bureaucracy and waste) | | | | | | | | | | | | | | | | | |
| 1.07 | Wastefulness of government spending | | 57 | | | 119 | | 43 | 76 | | 81 | | | 120 | | 34 | 83 |
| 1.08 | Burden of government regulation | 39 | 72 | | | 113 | | 50 | 106 | 58 | 87 | | | 109 | | 47 | 105 |
| 1.09 | Efficiency of legal framework in setting disoutes | 32 | 72 | 59 | 36 | 123 | | 42 | | 47 | 91 | 66 | 21 | 104 | | 49 | 56 |
| | Efficiency of legal framework in challenging regs | 55 | 65 | 52 | 40 | 109 | | 50 | | | | | | | | | |
| 1.10 | Transparency of government policymaking | 46 | 106 | 87 | 30 | 104 | | 60 | 53 | | 76 | 121 | | 85 | | 60 | 58 |
| Security | | | | | | | | | | | | | | | | | |
| 1.11 | Business costs of terrorism | | 94 | 89 | 97 | 124 | 79 | 107 | 99 | | 98 | 81 | 82 | 125 | 76 | 107 | 99 |
| 1.12 | Business costs of crime and violence | | 77 | 62 | 95 | 96 | 10 | 61 | 72 | | 79 | | 74 | 93 | | 50 | 58 |
| 1.13 | Organized crime | | 84 | 81 | 83 | 102 | | 73 | 85 | | 83 | 61 | 75 | 92 | | 63 | 85 |
| 1.14 | Reliability of police services | 38 | 113 | 79 | 48 | 101 | | 88 | | 42 | 115 | 85 | 37 | 98 | | 71 | |
| *Private institutions* | | | | | | | | | | | | | | | | | |
| Corporate ethics | | | | | | | | | | | | | | | | | |
| 1.15 | Ethical behaviour of firms | 37 | 90 | 102 | 44 | 116 | | 64 | 63 | 50 | 99 | 97 | 30 | 102 | | 69 | 73 |
| Accountability | | | | | | | | | | | | | | | | | |
| 1.16 | Strength of auditing and accounting standards | 51 | 113 | 76 | 43 | 61 | | 52 | 108 | 63 | 126 | 75 | 33 | | | 58 | 106 |
| 1.17 | Efficacy of corporate boards | 42 | 89 | | 25 | 62 | | 73 | 78 | 43 | 72 | | 25 | 53 | | 66 | 85 |
| 1.18 | Protection of minority shareholders' interests | 61 | 101 | | | 77 | | 43 | 66 | 93 | 106 | | 25 | 54 | | 46 | 75 |
| 2. Infrastructure | | | | | | | | | | | | | | | | | |
| 2.01 | Quality of overall infrastructure | 37 | 82 | 96 | 27 | 98 | | 41 | 111 | 39 | 82 | 96 | | 94 | | 35 | 97 |
| 2.02 | Quality of roads | | 77 | 94 | 24 | 104 | | | 102 | | 80 | 105 | | 94 | | | 102 |
| 2.03 | Quality of railroad infrastructure | n.a. | 94 | 60 | | 92 | | 52 | 58 | n.a. | 97 | 58 | | 85 | | 48 | 66 |
| 2.04 | Quality of port infrastructure | 42 | 89 | 95 | | 112 | | 47 | 99 | | 91 | 104 | | 100 | | 48 | 112 |
| 2.05 | Quality of air transport infrastructure | 47 | 88 | 68 | 27 | 100 | | | 84 | | 87 | 75 | | 89 | | | 92 |
| 2.06 | Available seat kilometres | 90 | 91 | | | | 17 | | | 86 | 91 | | 22 | | 17 | | |
| 2.07 | Quality of electricity supply | 47 | 121 | 96 | 39 | 87 | 12 | 41 | 103 | 45 | 117 | 92 | 31 | 82 | 13 | 43 | 104 |
| 2.08 | Telephone lines | 64 | 127 | 79 | 72 | 102 | 27 | 84 | | 61 | 132 | 100 | 71 | 105 | 30 | 86 | |
| 3. Macroeconomy | | | | | | | | | | | | | | | | | |
| 3.01 | Government surplus/deficit | | 72 | 74 | 110 | 60 | 18 | | 110 | | 71 | 84 | 109 | 64 | | 96 | 86 |
| 3.02 | National savings rate | | 98 | | | 83 | 10 | | | | 93 | | | 84 | | | |
| 3.03 | Inflation | | 120 | 80 | 40 | 79 | 51 | 41 | 126 | | 74 | 79 | 25 | | 24 | | 103 |
| 3.04 | Interest rate spread | 52 | 119 | 60 | | 47 | 57 | 51 | | 52 | 122 | 74 | 31 | 64 | 59 | 48 | |
| 3.05 | Government debt | .. | | 56 | 74 | 101 | 126 | 66 | 81 | | 52 | 63 | 74 | 96 | 121 | 66 | 76 |
| 4. Health and primary education | | | | | | | | | | | | | | | | | |
| *Health* | | | | | | | | | | | | | | | | | |
| 4.01 | Business impact of malaria | 85 | 108 | 97 | 86 | 101 | | 79 | 91 | 89 | 105 | 93 | 76 | 87 | 56 | 60 | 79 |
| 4.02 | Malaria incidence | 75 | 107 | 105 | 84 | 90 | | 95 | 86 | 74 | 109 | 96 | 84 | 91 | | 93 | 90 |
| 4.03 | Business impact of tuberculosis | 86 | 106 | 92 | 80 | 109 | 35 | 66 | 88 | 85 | 109 | 86 | 65 | 102 | 29 | 57 | 88 |
| 4.04 | Tuberculosis incidence | 71 | 127 | 108 | 89 | 113 | 48 | 97 | 100 | 80 | 127 | 109 | 88 | 115 | 46 | 96 | 100 |
| 4.05 | Business impacts of HIV/AIDS | 72 | 109 | 88 | 81 | 69 | 26 | 104 | 82 | 69 | 109 | 78 | 67 | 61 | 19 | 97 | 75 |
| 4.06 | HIV prevalence | | 93 | 54 | 78 | | 54 | 107 | 78 | | 95 | | 79 | | 50 | 108 | 79 |
| 4.07 | Infant mortality | 41 | 110 | 85 | 50 | 82 | | | 63 | 39 | 125 | 88 | 47 | 83 | | 70 | 64 |
| 4.08 | Life expectancy | 38 | 106 | 92 | 69 | 80 | | 87 | 69 | | 108 | 89 | 66 | 89 | 12 | 66 | 66 |
| *Primary education* | | | | | | | | | | | | | | | | | |
| 4.09 | Quality of primary education | | 114 | 58 | 31 | 78 | | 69 | 80 | | 122 | 51 | 23 | 72 | | 64 | 96 |
| 4.10 | Primary enrolment | 74 | 90 | 56 | 28 | 81 | 36 | 53 | 71 | 64 | 87 | | | 76 | 38 | 61 | 55 |
| 4.11 | Education expenditure | 82 | 124 | 127 | 24 | 118 | 109 | 44 | 103 | 101 | 121 | 126 | | 113 | 110 | 46 | 100 |
| **Efficiency enhancers** | | | | | | | | | | | | | | | | | |
| 5. Higher education and training | | | | | | | | | | | | | | | | | |
| *Quantity of education* | | | | | | | | | | | | | | | | | |
| 5.01 | Secondary enrolment | 37 | 114 | 93 | 98 | 83 | 17 | 82 | 100 | | 115 | 102 | 95 | 79 | 21 | 85 | 100 |
| 5.02 | Tertiary enrolment | 95 | 114 | 90 | 71 | 74 | 29 | 43 | 107 | 94 | 117 | 91 | 71 | 72 | 31 | 44 | 106 |
| *Quality of education* | | | | | | | | | | | | | | | | | |
| 5.03 | Quality of the educational system | 39 | 101 | | | 50 | | 67 | 85 | 48 | 112 | | | | | 53 | 120 |
| 5.04 | Quality of math and science education | 40 | 115 | 50 | 34 | 94 | | 62 | 53 | 53 | 122 | | 21 | 100 | | 55 | 72 |
| 5.05 | Quality of management schools | 74 | 120 | 51 | 34 | | | 59 | 111 | 88 | 123 | | 23 | | | 49 | 120 |
| 5.06 | Internet access in schools | 37 | 105 | 59 | 40 | 66 | | 41 | 58 | | 107 | 58 | 40 | 56 | | 42 | 62 |
| 5.07 | Local availability of specialized research and training services | 108 | 106 | | 26 | 83 | 14 | 61 | 89 | 105 | 115 | | 27 | 51 | 13 | 58 | 76 |
| 5.08 | Extent of staff training | 54 | 86 | | | | | 62 | | 61 | 107 | | | | | 51 | 72 |

(Continue)

| | | 2009-2010 | | | | | | | | 2008-2009 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Brunei | Cambodia | Indonesia | Malaysia | Philippines | Singapore | Thailand | Viet Nam | Brunei | Cambodia | Indonesia | Malaysia | Philippines | Singapore | Thailand | Viet Nam |
| 6. Goods Market efficiency | | | | | | | | | | | | | | | | | |
| 6.01 | Intensity of local competition | 75 | 112 | | 42 | 81 | 21 | 41 | 62 | 81 | 118 | | 31 | 74 | 30 | 45 | 56 |
| 6.02 | Extent of market dominance | 72 | 88 | | 32 | 108 | 11 | 59 | | 61 | 88 | | 24 | 104 | 11 | 60 | |
| 6.03 | Effectiveness of anti-monopoly policy | 71 | 105 | | 47 | 87 | | 53 | 56 | 83 | 118 | | 40 | 77 | 20 | 66 | 91 |
| 6.04 | Extent and effect of taxation | | 50 | | 30 | 68 | | 40 | | | | | | 65 | | | 53 |
| 6.05 | Total tax rate | 55 | | 54 | 41 | 93 | 18 | 56 | 61 | 47 | | | 40 | 99 | | 49 | 61 |
| 6.06 | Number of procedures required to start a business | 126 | 78 | 99 | 75 | 120 | | 60 | 99 | 125 | 75 | 103 | 58 | 120 | | 44 | 91 |
| 6.07 | Time required to start a business | 126 | 124 | 121 | 33 | 113 | | 89 | 111 | 125 | 120 | 123 | 51 | 107 | | 77 | 105 |
| 6.08 | Agricultural policy costs | | | | | 97 | | 70 | | | | | | 76 | | 52 | |
| 6.09 | Prevalence of trade barriers | 40 | 96 | | 83 | 98 | | 80 | 103 | 80 | 105 | | 70 | 95 | | 101 | 110 |
| 6.10 | Trade-weighted tariff rate | 45 | 107 | 71 | 68 | 50 | | 78 | 126 | 70 | 107 | 66 | 72 | 52 | | 81 | 126 |
| 6.11 | Prevalence of foreign ownership | 108 | 77 | | 68 | 102 | | 80 | 107 | 121 | 75 | | 67 | 98 | | 89 | 104 |
| 6.12 | Business impact of rules on FDI | 78 | | | 43 | 97 | | 44 | | 81 | 70 | | 47 | 97 | | 68 | |
| 6.13 | Burden of customs procedures | 36 | 102 | 83 | 28 | 117 | | 60 | 91 | | 110 | 95 | 27 | 105 | | 52 | 91 |
| 6.14 | Degree of customer orientation | 60 | 69 | 54 | 26 | | 10 | | 80 | 62 | 85 | | 22 | | | | 91 |
| 6.15 | Buyer sophistication | 101 | 58 | | 25 | 73 | | 46 | | 99 | 65 | | 23 | | | 44 | |
| 7. Labor Market efficiency | | | | | | | | | | | | | | | | | |
| 7.01 | Cooperation in labor-employer relations | | 105 | | | 65 | | | | | 113 | | | 71 | | | 91 |
| 7.02 | Flexibility of wage determination | 33 | 75 | 92 | 54 | 96 | | 89 | 79 | | 84 | 79 | 42 | 108 | | 91 | 101 |
| 7.03 | Non-wage labor costs | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | | | | 60 | | 46 | | 69 |
| 7.04 | Rigidity of employment | | 92 | 82 | | 68 | | | | | 90 | 87 | | 61 | | | |
| 7.05 | Hiring and firing practices | 78 | | | 46 | 110 | | | | 79 | | | 42 | 101 | | 39 | |
| 7.06 | Firing costs | | 71 | 119 | 96 | 109 | | 84 | 104 | | 70 | 117 | 95 | 108 | | 84 | 103 |
| 7.07 | Pay and productivity | | 50 | | | 74 | | 38 | | | 64 | | | 57 | | 43 | |
| 7.08 | Reliance on professional management | 65 | 109 | 55 | 29 | | | 61 | 82 | 82 | 121 | | 22 | | | 59 | 95 |
| 7.09 | Brain drain | 33 | 51 | | 31 | 104 | | | 76 | | 55 | | 29 | 116 | 13 | | 88 |
| 7.10 | Female participation in labor force | 69 | | 104 | 107 | 99 | 84 | 53 | | 109 | | 102 | 107 | 86 | 83 | 38 | |
| 8. Financial markets sophistication | | | | | | | | | | | | | | | | | |
| 8.01 | Financial market sophistication | 64 | 120 | 56 | 31 | 71 | | | 98 | 68 | 114 | 72 | 31 | 57 | | 37 | 106 |
| 8.02 | Financing through local equity market | 117 | 130 | | | 54 | | | | 126 | 134 | | | 54 | 18 | | |
| 8.03 | Ease of access to loans | 42 | 95 | | | 88 | | | 69 | 62 | 107 | 65 | | 89 | 11 | 44 | 91 |
| 8.04 | Venture capital availability | 62 | 78 | | | 87 | | 49 | 50 | 78 | 95 | | | 77 | 12 | 53 | 59 |
| 8.05 | Restriction on capital flows | 56 | 85 | | 60 | 68 | | 89 | 80 | 71 | 62 | | 67 | 75 | | 104 | 84 |
| 8.06 | Strength of investor protection | 90 | 55 | | | 100 | | | 126 | 86 | | | | 107 | | | 123 |
| 8.07 | Soundness of banks | 39 | 114 | 96 | 38 | 58 | | 43 | 111 | 61 | 125 | 121 | 50 | 72 | 13 | 75 | 113 |
| 8.08 | Regulation of securities exchanges | 101 | 126 | | 30 | 77 | | | 90 | 101 | 130 | | 32 | 66 | | 36 | 81 |
| 8.09 | Legal rights index | 36 | | 98 | | 98 | | 83 | | | 128 | 52 | | 93 | | 52 | |
| 9. Technological readiness | | | | | | | | | | | | | | | | | |
| 9.01 | Availability of latest technologies | 51 | 100 | 72 | 36 | 57 | 14 | 53 | 81 | 59 | 109 | 61 | 29 | 52 | 14 | 50 | 71 |
| 9.02 | Firm-level technology absorption | 57 | 93 | 65 | 37 | 54 | 13 | 61 | 51 | 53 | 106 | 65 | 21 | | 13 | 61 | 54 |
| 9.03 | Laws relating to ICT | 72 | 118 | 65 | 26 | 71 | | 68 | 70 | 85 | 122 | 71 | | 60 | | 61 | 72 |
| 9.04 | FDI and technology transfer | 92 | 56 | | | 72 | | 50 | | 82 | 94 | | | | | 48 | 57 |
| 9.05 | Mobile telephone subscribers | 65 | 118 | 94 | 51 | 83 | 10 | | 79 | 53 | 120 | 100 | 56 | 84 | 15 | 72 | 114 |
| 9.06 | Internet users | 39 | 129 | 87 | | 106 | 15 | 75 | 76 | | 130 | 107 | | 101 | 15 | 78 | 70 |
| 9.07 | Personal computers | 68 | 125 | 103 | 41 | 71 | | 78 | 62 | 67 | 128 | 105 | 38 | 70 | | 72 | 63 |
| 9.08 | Broadband Internet subscribers | 67 | 106 | 101 | 55 | 89 | 22 | 78 | 77 | 57 | 108 | 100 | 51 | 96 | 22 | 94 | 79 |
| 10. Market size | | | | | | | | | | | | | | | | | |
| 10.01 | Domestic market size | 121 | 92 | | 36 | | 49 | | | 123 | 96 | | 35 | | 53 | | |
| 10.02 | Foreign market size | 91 | 85 | | | | 11 | | | 92 | 79 | | | | 11 | | |
| **Innovation and sophistication factors** | | | | | | | | | | | | | | | | | |
| 11. Business sophistication | | | | | | | | | | | | | | | | | |
| Networks and supporting industries | | | | | | | | | | | | | | | | | |
| 11.01 | Local supplier quantity | 63 | 125 | 50 | 27 | 75 | 44 | | 74 | 63 | 126 | | | 77 | 44 | | 79 |
| 11.02 | Local supplier quality | 78 | 114 | 58 | 42 | 77 | 28 | 40 | 92 | 82 | 117 | 57 | 32 | 64 | 22 | 40 | 97 |
| Sophistication of firms' operations and strategy | | | | | | | | | | | | | | | | | |
| 11.03 | State of cluster development | 72 | 55 | | | 59 | | | | 78 | 60 | | | 56 | | | |
| 11.04 | Nature of competitive advantage | 50 | 73 | | 31 | 59 | 13 | 63 | 105 | 39 | 86 | | 29 | | 16 | 67 | 126 |
| 11.05 | Value-chain breadth | 126 | 101 | | | 61 | 12 | 42 | 77 | 128 | 88 | | 26 | | 14 | 54 | 91 |
| 11.06 | Control of international distribution | 78 | 123 | | 31 | 64 | 60 | 62 | 89 | 127 | 123 | | | 67 | 57 | 83 | 119 |
| 11.07 | Production process sophistication | 91 | 111 | 60 | 33 | 83 | 13 | 66 | 73 | 87 | 107 | 72 | 27 | 77 | 14 | 68 | 94 |
| 11.08 | Extent of marketing | 93 | 114 | 56 | 35 | 58 | 14 | 47 | 76 | 106 | 117 | 55 | 29 | | 17 | 47 | 98 |
| 11.09 | Willingness to delegate authority | 68 | 111 | | | | 19 | 76 | 79 | 104 | 120 | | | | 15 | 67 | 96 |
| 12. Innovation | | | | | | | | | | | | | | | | | |
| 12.01 | Capacity for innovation | 91 | 92 | | 25 | 70 | 18 | 59 | | 103 | 107 | 53 | 21 | 63 | 19 | 64 | |
| 12.02 | Quality of scientific research institutions | 97 | 107 | | 28 | 102 | 12 | 60 | 64 | 93 | 120 | | | 86 | 13 | 57 | 85 |
| 12.03 | Company spending on research and development | 70 | 81 | | | 61 | | 47 | | 92 | 75 | | | | | 54 | |
| 12.04 | University-industry research collaboration | 75 | 109 | | | 89 | | 44 | 59 | 76 | 106 | 54 | | 63 | | 38 | 70 |
| 12.05 | Government procurement of advanced technology pr | 32 | 76 | | | 119 | | 58 | | 45 | 85 | 87 | | 110 | | 48 | |
| 12.06 | Availability of scientists and engineers | 110 | 113 | | 33 | 95 | 14 | 54 | 62 | 117 | 126 | | 24 | 92 | 22 | 56 | 51 |
| 12.07 | Utility patents | 90 | 90 | 87 | 29 | 78 | 11 | 68 | 90 | 88 | 88 | 84 | 29 | 68 | 11 | 69 | 88 |

Data source: World Economic Forum (2008, 2009)

Note: variables considered as disadvantages are those ranked below 10 for Singapore with an overall ranking in the top 10 economies, those ranked equal to or lower than the economy's overall ranking for Brunei, Malaysia, Thailand, with an overall ranking from 11 to 50, and those ranked lower than 50 for Cambodia, Indonesia, the Philippines and Viet Nam with an overall ranking lower than 51.

**Table A3.1 Assessment of FDI Policy Regimes by Country**

| Brunei Darussalam | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.394 | 0.243 | 0.795 | 0.434 | 0.590 | 0.180 | 0.180 |
| A - Agriculture, forestry and fishing | 0.240 | 0.10 | 0.75 | 0.00 | 0.50 | 0.00 | 0.00 |
| B - Mining and quarrying | 0.226 | 0.02 | 0.75 | 0.18 | 0.50 | 0.00 | 0.00 |
| C - Manufacturing | 0.239 | 0.05 | 0.75 | 0.19 | 0.50 | 0.00 | 0.00 |
| D - Electricity, gas, steam and air conditioning supply | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| E - Water supply; sewerage, waste management and remediation activities | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| F - Construction | 0.343 | 0.28 | 0.75 | 0.30 | 0.50 | 0.00 | 0.00 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.200 | 0.00 | 0.75 | 0.00 | 0.50 | 0.00 | 0.00 |
| H - Transportation and storage | 0.360 | 0.20 | 0.80 | 0.20 | 0.60 | 0.20 | 0.20 |
| I - Accommodation and food service activities | 0.200 | 0.00 | 0.75 | 0.00 | 0.50 | 0.00 | 0.00 |
| J - Information and communication | 0.245 | 0.00 | 0.75 | 0.45 | 0.50 | 0.00 | 0.00 |
| K - Financial and insurance activities | 0.290 | 0.00 | 0.75 | 0.90 | 0.50 | 0.00 | 0.00 |
| L - Real estate activities | 0.200 | 0.00 | 0.75 | 0.00 | 0.50 | 0.00 | 0.00 |
| M - Professional, scientific and technical activities | 0.281 | 0.11 | 0.75 | 0.39 | 0.50 | 0.00 | 0.00 |
| N - Administrative and support service activities | 0.200 | 0.00 | 0.75 | 0.00 | 0.50 | 0.00 | 0.00 |
| O - Public administration and defence; compulsory social security | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| P - Education | 0.290 | 0.00 | 0.75 | 0.90 | 0.50 | 0.00 | 0.00 |
| Q - Human health and social work activities | 0.290 | 0.00 | 0.75 | 0.90 | 0.50 | 0.00 | 0.00 |
| R - Arts, entertainment and recreation | 0.468 | 0.25 | 0.81 | 0.93 | 0.63 | 0.25 | 0.25 |
| S - Other service activities | 0.467 | 0.33 | 0.83 | 0.33 | 0.67 | 0.33 | 0.33 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.245 | 0.00 | 0.75 | 0.45 | 0.50 | 0.00 | 0.00 |
| U - Activities of extraterritorial organizations and bodies | 0.500 | 0.75 | 0.75 | 0.00 | 0.50 | 0.00 | 0.00 |

| Cambodia | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.242 | 0.140 | 0.183 | 0.622 | 0.000 | 0.750 | 0.117 |
| A - Agriculture, forestry and fishing | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| B - Mining and quarrying | 0.340 | 0.20 | 0.75 | 0.10 | 0.00 | 0.75 | 0.25 |
| C - Manufacturing | 0.135 | 0.10 | 0.00 | 0.10 | 0.00 | 0.75 | 0.10 |
| D - Electricity, gas, steam and air conditioning supply | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| E - Water supply; sewerage, waste management and remediation activities | 0.205 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.15 |
| F - Construction | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.285 | 0.10 | 0.75 | 0.10 | 0.00 | 0.75 | 0.10 |
| H - Transportation and storage | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| I - Accommodation and food service activities | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| J - Information and communication | 0.267 | 0.20 | 0.35 | 0.32 | 0.00 | 0.75 | 0.10 |
| K - Financial and insurance activities | 0.170 | 0.10 | 0.00 | 0.45 | 0.00 | 0.75 | 0.10 |
| L - Real estate activities | 0.625 | 0.75 | 0.75 | 0.75 | 0.00 | 0.75 | 0.25 |
| M - Professional, scientific and technical activities | 0.280 | 0.10 | 0.40 | 0.75 | 0.00 | 0.75 | 0.10 |
| N - Administrative and support service activities | 0.220 | 0.10 | 0.10 | 0.75 | 0.00 | 0.75 | 0.10 |
| O - Public administration and defence; compulsory social security | 0.350 | 0.10 | 0.75 | 0.75 | 0.00 | 0.75 | 0.10 |
| P - Education | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| Q - Human health and social work activities | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| R - Arts, entertainment and recreation | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| S - Other service activities | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |
| U - Activities of extraterritorial organizations and bodies | 0.200 | 0.10 | 0.00 | 0.75 | 0.00 | 0.75 | 0.10 |

| Indonesia | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.375 | 0.364 | 0.198 | 0.789 | 0.308 | 0.546 | 0.255 |
| A - Agriculture, forestry and fishing | 0.320 | 0.40 | 0.00 | 0.75 | 0.25 | 0.50 | 0.10 |
| B - Mining and quarrying | 0.156 | 0.04 | 0.00 | 0.75 | 0.05 | 0.50 | 0.10 |
| C - Manufacturing | 0.265 | 0.21 | 0.14 | 0.75 | 0.14 | 0.50 | 0.14 |
| D - Electricity, gas, steam and air conditioning supply | 0.221 | 0.20 | 0.00 | 0.75 | 0.06 | 0.50 | 0.10 |
| E - Water supply; sewerage, waste management and remediation activities | 0.180 | 0.05 | 0.00 | 0.75 | 0.25 | 0.50 | 0.10 |
| F - Construction | 0.276 | 0.29 | 0.00 | 0.75 | 0.25 | 0.50 | 0.10 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.252 | 0.23 | 0.00 | 0.75 | 0.25 | 0.50 | 0.10 |
| H - Transportation and storage | 0.478 | 0.60 | 0.20 | 0.80 | 0.40 | 0.50 | 0.28 |
| I - Accommodation and Food service activities | 0.280 | 0.30 | 0.00 | 0.75 | 0.25 | 0.50 | 0.10 |
| J - Information and communication | 0.496 | 0.53 | 0.46 | 0.79 | 0.38 | 0.50 | 0.25 |
| K - Financial and insurance activities | 0.372 | 0.53 | 0.00 | 0.75 | 0.25 | 0.50 | 0.10 |
| L - Real estate activities | 0.950 | 1.00 | 1.00 | 1.00 | 1.00 | 0.50 | 1.00 |
| M - Professional, scientific and technical activities | 0.256 | 0.24 | 0.00 | 0.75 | 0.25 | 0.50 | 0.10 |
| N - Administrative and support service activities | 0.596 | 0.60 | 0.58 | 0.83 | 0.50 | 0.67 | 0.40 |
| O - Public administration and defence; compulsory social security | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| P - Education | 0.275 | 0.25 | 0.00 | 0.75 | 0.25 | 0.50 | 0.25 |
| Q - Human health and social work activities | 0.564 | 0.62 | 0.33 | 0.83 | 0.50 | 0.67 | 0.50 |
| R - Arts, entertainment and recreation | 0.533 | 0.56 | 0.44 | 0.81 | 0.44 | 0.63 | 0.33 |
| S - Other service activities | 0.135 | 0.00 | 0.00 | 0.75 | 0.00 | 0.50 | 0.10 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.135 | 0.00 | 0.00 | 0.75 | 0.00 | 0.50 | 0.10 |
| U - Activities of extraterritorial organizations and bodies | 0.135 | 0.00 | 0.00 | 0.75 | 0.00 | 0.50 | 0.10 |

| Lao PDR | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.428 | 0.392 | 0.410 | 0.608 | 0.250 | 0.793 | 0.245 |
| A - Agriculture, forestry and fishing | 0.475 | 0.50 | 0.75 | 0.50 | 0.00 | 0.75 | 0.00 |
| B - Mining and quarrying | 0.245 | 0.30 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| C - Manufacturing | 0.243 | 0.27 | 0.00 | 0.50 | 0.00 | 0.75 | 0.10 |
| D - Electricity, gas, steam and air conditioning supply | 0.650 | 0.75 | 0.75 | 0.50 | 0.75 | 0.75 | 0.00 |
| E - Water supply; sewerage, waste management and remediation activities | 0.165 | 0.10 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| F - Construction | 0.813 | 0.84 | 0.92 | 0.84 | 0.67 | 0.75 | 0.67 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.230 | 0.20 | 0.00 | 0.50 | 0.00 | 0.75 | 0.25 |
| H - Transportation and storage | 0.318 | 0.42 | 0.00 | 0.50 | 0.00 | 0.75 | 0.25 |
| I - Accommodation and Food service activities | 0.165 | 0.10 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| J - Information and communication | 0.475 | 0.47 | 0.33 | 0.67 | 0.33 | 0.83 | 0.38 |
| K - Financial and insurance activities | 0.315 | 0.10 | 0.75 | 0.50 | 0.00 | 0.75 | 0.00 |
| L - Real estate activities | 0.315 | 0.10 | 0.75 | 0.50 | 0.00 | 0.75 | 0.00 |
| M - Professional, scientific and technical activities | 0.315 | 0.10 | 0.75 | 0.50 | 0.00 | 0.75 | 0.00 |
| N - Administrative and support service activities | 0.337 | 0.28 | 0.29 | 0.58 | 0.17 | 0.75 | 0.17 |
| O - Public administration and defence; compulsory social security | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| P - Education | 0.165 | 0.10 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| Q - Human health and social work activities | 0.165 | 0.10 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| R - Arts, entertainment and recreation | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| S - Other service activities | 0.442 | 0.40 | 0.33 | 0.67 | 0.33 | 0.83 | 0.33 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| U - Activities of extraterritorial organizations and bodies | 0.165 | 0.10 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |

| Malaysia | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.438 | 0.320 | 0.833 | 0.250 | 0.397 | 0.562 | 0.227 |
| A - Agriculture, forestry and fishing | 0.345 | 0.10 | 1.00 | 0.10 | 0.10 | 0.60 | 0.25 |
| B - Mining and quarrying | 0.460 | 0.20 | 1.00 | 1.00 | 0.10 | 0.60 | 0.10 |
| C - Manufacturing | 0.314 | 0.13 | 0.78 | 0.21 | 0.21 | 0.30 | 0.34 |
| D - Electricity, gas, steam and air conditioning supply | 0.660 | 0.60 | 1.00 | 0.75 | 0.75 | 0.60 | 0.10 |
| E - Water supply; sewerage, waste management and remediation activities | 0.745 | 0.70 | 1.00 | 0.81 | 0.81 | 0.70 | 0.33 |
| F - Construction | 0.355 | 0.00 | 1.00 | 0.10 | 0.75 | 0.60 | 0.10 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.530 | 0.30 | 1.00 | 0.10 | 0.25 | 0.75 | 1.00 |
| H - Transportation and storage | 0.509 | 0.36 | 1.00 | 0.10 | 0.70 | 0.60 | 0.25 |
| I - Accommodation and food service activities | 0.562 | 0.38 | 1.00 | 0.50 | 0.75 | 0.60 | 0.25 |
| J - Information and communication | 0.610 | 0.60 | 1.00 | 0.10 | 0.75 | 0.60 | 0.25 |
| K - Financial and insurance activities | 0.527 | 0.43 | 1.00 | 0.10 | 0.75 | 0.60 | 0.10 |
| L - Real estate activities | 0.620 | 0.75 | 1.00 | 0.10 | 0.25 | 0.75 | 0.10 |
| M - Professional, scientific and technical activities | 0.331 | 0.23 | 0.39 | 0.29 | 0.36 | 0.71 | 0.25 |
| N - Administrative and support service activities | 0.196 | 0.10 | 0.33 | 0.03 | 0.17 | 0.60 | 0.10 |
| O - Public administration and defence; compulsory social security | 0.560 | 0.60 | 1.00 | 0.10 | 0.25 | 0.60 | 0.25 |
| P - Education | 0.560 | 0.60 | 1.00 | 0.10 | 0.25 | 0.60 | 0.25 |
| Q - Human health and social work activities | 0.305 | 0.00 | 1.00 | 0.10 | 0.25 | 0.60 | 0.10 |
| R - Arts, entertainment and recreation | 0.713 | 0.65 | 1.00 | 0.55 | 0.63 | 0.80 | 0.55 |
| S - Other service activities | 0.305 | 0.00 | 1.00 | 0.10 | 0.25 | 0.60 | 0.10 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| U - Activities of extraterritorial organizations and bodies | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Myanmar | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.463 | 0.378 | 0.401 | 0.921 | 0.399 | 0.714 | 0.284 |
| A - Agriculture, forestry and fishing | 0.490 | 0.45 | 0.75 | 0.90 | 0.10 | 0.60 | 0.00 |
| B - Mining and quarrying | 0.559 | 0.55 | 0.40 | 0.97 | 0.46 | 0.76 | 0.40 |
| C - Manufacturing | 0.214 | 0.09 | 0.04 | 0.90 | 0.14 | 0.62 | 0.04 |
| D - Electricity, gas, steam and air conditioning supply | 0.950 | 0.90 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 |
| E - Water supply; sewerage, waste management and remediation activities | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |
| F - Construction | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |
| H - Transportation and storage | 0.784 | 0.80 | 0.80 | 0.96 | 0.64 | 0.84 | 0.60 |
| I - Accommodation and Food service activities | 0.440 | 0.10 | 0.75 | 0.90 | 1.00 | 0.60 | 0.00 |
| J - Information and communication | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| K - Financial and insurance activities | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| L - Real estate activities | 0.350 | 0.10 | 0.75 | 0.90 | 0.10 | 0.60 | 0.00 |
| M - Professional, scientific and technical activities | 0.537 | 0.49 | 0.43 | 0.86 | 0.49 | 0.77 | 0.43 |
| N - Administrative and support service activities | 0.600 | 0.55 | 0.50 | 0.95 | 0.55 | 0.80 | 0.50 |
| O - Public administration and defence; compulsory social security | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| P - Education | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |
| Q - Human health and social work activities | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |
| R - Arts, entertainment and recreation | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |
| S - Other service activities | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |
| U - Activities of extraterritorial organizations and bodies | 0.200 | 0.10 | 0.00 | 0.90 | 0.10 | 0.60 | 0.00 |

| Philippines | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.237 | 0.257 | 0.279 | 0.112 | 0.519 | 0.043 | 0.107 |
| A - Agriculture, forestry and fishing | 0.375 | 0.35 | 0.75 | 0.10 | 0.50 | 0.00 | 0.25 |
| B - Mining and quarrying | 0.355 | 0.30 | 0.75 | 0.10 | 0.50 | 0.00 | 0.25 |
| C - Manufacturing | 0.115 | 0.10 | 0.00 | 0.00 | 0.50 | 0.00 | 0.25 |
| D - Electricity, gas, steam and air conditioning supply | 0.195 | 0.30 | 0.00 | 0.00 | 0.50 | 0.00 | 0.25 |
| E - Water supply; sewerage, waste management and remediation activities | 0.220 | 0.30 | 0.20 | 0.10 | 0.50 | 0.00 | 0.00 |
| F - Construction | 0.110 | 0.15 | 0.00 | 0.00 | 0.50 | 0.00 | 0.00 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.130 | 0.05 | 0.25 | 0.00 | 0.50 | 0.00 | 0.10 |
| H - Transportation and storage | 0.375 | 0.50 | 0.55 | 0.00 | 0.50 | 0.00 | 0.15 |
| I - Accommodation and food service activities | 0.095 | 0.05 | 0.00 | 0.25 | 0.50 | 0.00 | 0.00 |
| J - Information and communication | 0.230 | 0.40 | 0.00 | 0.10 | 0.50 | 0.00 | 0.10 |
| K - Financial and insurance activities | 0.145 | 0.20 | 0.00 | 0.15 | 0.40 | 0.00 | 0.10 |
| L - Real estate activities | 0.400 | 0.50 | 0.75 | 0.00 | 0.50 | 0.00 | 0.00 |
| M - Professional, scientific and technical activities | 0.475 | 0.55 | 0.50 | 0.20 | 0.50 | 0.75 | 0.10 |
| N - Administrative and support service activities | 0.250 | 0.35 | 0.10 | 0.20 | 0.50 | 0.15 | 0.05 |
| O - Public administration and defence; compulsory social security | 0.260 | 0.50 | 0.00 | 0.00 | 0.50 | 0.00 | 0.10 |
| P - Education | 0.400 | 0.50 | 0.00 | 0.75 | 1.00 | 0.00 | 0.25 |
| Q - Human health and social work activities | 0.150 | 0.15 | 0.00 | 0.15 | 0.50 | 0.00 | 0.25 |
| R - Arts, entertainment and recreation | 0.140 | 0.15 | 0.00 | 0.25 | 0.50 | 0.00 | 0.05 |
| S - Other service activities | 0.250 | 0.00 | 1.00 | 0.00 | 0.50 | 0.00 | 0.00 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.250 | 0.00 | 1.00 | 0.00 | 0.50 | 0.00 | 0.00 |
| U - Activities of extraterritorial organizations and bodies | 0.050 | 0.00 | 0.00 | 0.00 | 0.50 | 0.00 | 0.00 |

| Singapore | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.175 | 0.197 | 0.143 | 0.154 | 0.356 | 0.074 | 0.091 |
| A - Agriculture, forestry and fishing | 0.025 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |
| B - Mining and quarrying | 0.025 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |
| C - Manufacturing | 0.032 | 0.00 | 0.03 | 0.01 | 0.25 | 0.00 | 0.00 |
| D - Electricity, gas, steam and air conditioning supply | 0.685 | 0.90 | 1.00 | 0.75 | 0.25 | 0.00 | 0.25 |
| E - Water supply; sewerage, waste management and remediation activities | 0.270 | 0.25 | 0.25 | 0.25 | 0.45 | 0.25 | 0.25 |
| F - Construction | 0.025 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.065 | 0.10 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |
| H - Transportation and storage | 0.170 | 0.20 | 0.15 | 0.25 | 0.25 | 0.00 | 0.10 |
| I - Accommodation and Food service activities | 0.025 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |
| J - Information and communication | 0.246 | 0.25 | 0.30 | 0.27 | 0.46 | 0.00 | 0.13 |
| K - Financial and insurance activities | 0.106 | 0.14 | 0.00 | 0.25 | 0.25 | 0.00 | 0.00 |
| L - Real estate activities | 0.075 | 0.10 | 0.00 | 0.10 | 0.25 | 0.00 | 0.00 |
| M - Professional, scientific and technical activities | 0.169 | 0.14 | 0.14 | 0.17 | 0.40 | 0.14 | 0.14 |
| N - Administrative and support service activities | 0.087 | 0.02 | 0.13 | 0.08 | 0.25 | 0.17 | 0.04 |
| O - Public administration and defence; compulsory social security | 0.800 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| P - Education | 0.700 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Q - Human health and social work activities | 0.028 | 0.00 | 0.00 | 0.03 | 0.25 | 0.00 | 0.00 |
| R - Arts, entertainment and recreation | 0.025 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |
| S - Other service activities | 0.063 | 0.03 | 0.00 | 0.08 | 0.42 | 0.00 | 0.00 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.025 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |
| U - Activities of extraterritorial organizations and bodies | 0.025 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 |

| Thailand | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.300 | 0.423 | 0.000 | 0.500 | 0.000 | 0.805 | 0.000 |
| A - Agriculture, forestry and fishing | 0.350 | 0.50 | 0.00 | 0.50 | 0.00 | 1.00 | 0.00 |
| B - Mining and quarrying | 0.281 | 0.34 | 0.00 | 0.50 | 0.00 | 0.95 | 0.00 |
| C - Manufacturing | 0.193 | 0.16 | 0.00 | 0.50 | 0.00 | 0.79 | 0.00 |
| D - Electricity, gas, steam and air conditioning supply | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| E - Water supply; sewerage, waste management and remediation activities | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| F - Construction | 0.350 | 0.50 | 0.00 | 0.50 | 0.00 | 1.00 | 0.00 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| H - Transportation and storage | 0.335 | 0.50 | 0.00 | 0.50 | 0.00 | 0.85 | 0.00 |
| I - Accommodation and food service activities | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| J - Information and communication | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| K - Financial and insurance activities | 0.342 | 0.50 | 0.00 | 0.50 | 0.00 | 0.92 | 0.00 |
| L - Real estate activities | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| M - Professional, scientific and technical activities | 0.332 | 0.50 | 0.00 | 0.50 | 0.00 | 0.82 | 0.00 |
| N - Administrative and support service activities | 0.333 | 0.50 | 0.00 | 0.50 | 0.00 | 0.83 | 0.00 |
| O - Public administration and defence; compulsory social security | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| P - Education | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| Q - Human health and social work activities | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| R - Arts, entertainment and recreation | 0.275 | 0.38 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| S - Other service activities | 0.325 | 0.50 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.125 | 0.00 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |
| U - Activities of extraterritorial organizations and bodies | 0.125 | 0.00 | 0.00 | 0.50 | 0.00 | 0.75 | 0.00 |

| Vietnam | Total | Market access | NT | Screening | Directors | People | Performance |
|---|---|---|---|---|---|---|---|
| All sectors | 0.315 | 0.338 | 0.262 | 0.364 | 0.286 | 0.469 | 0.152 |
| A - Agriculture, forestry and fishing | 0.190 | 0.20 | 0.00 | 0.35 | 0.25 | 0.40 | 0.10 |
| B - Mining and quarrying | 0.175 | 0.10 | 0.15 | 0.70 | 0.05 | 0.25 | 0.05 |
| C - Manufacturing | 0.070 | 0.05 | 0.05 | 0.15 | 0.00 | 0.20 | 0.05 |
| D - Electricity, gas, steam and air conditioning supply | 0.375 | 0.50 | 0.00 | 0.90 | 0.25 | 0.50 | 0.10 |
| E - Water supply; sewerage, waste management and remediation activities | 0.135 | 0.20 | 0.00 | 0.10 | 0.10 | 0.35 | 0.00 |
| F - Construction | 0.495 | 0.60 | 0.75 | 0.30 | 0.25 | 0.50 | 0.00 |
| G - Wholesale and retail trade; repair of motor vehicles and motorcycles | 0.615 | 0.80 | 0.80 | 0.60 | 0.25 | 0.50 | 0.00 |
| H - Transportation and storage | 0.340 | 0.50 | 0.15 | 0.35 | 0.25 | 0.50 | 0.00 |
| I - Accommodation and food service activities | 0.085 | 0.10 | 0.00 | 0.00 | 0.10 | 0.35 | 0.00 |
| J - Information and communication | 0.450 | 0.50 | 0.40 | 0.50 | 0.50 | 0.40 | 0.30 |
| K - Financial and insurance activities | 0.160 | 0.15 | 0.00 | 0.20 | 0.25 | 0.50 | 0.05 |
| L - Real estate activities | 0.085 | 0.00 | 0.00 | 0.10 | 0.25 | 0.50 | 0.00 |
| M - Professional, scientific and technical activities | 0.260 | 0.20 | 0.30 | 0.20 | 0.30 | 0.50 | 0.20 |
| N - Administrative and support service activities | 0.130 | 0.10 | 0.25 | 0.00 | 0.10 | 0.30 | 0.00 |
| O - Public administration and defence; compulsory social security | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| P - Education | 0.190 | 0.10 | 0.00 | 0.50 | 0.25 | 0.50 | 0.25 |
| Q - Human health and social work activities | 0.630 | 0.70 | 0.65 | 0.70 | 0.70 | 0.80 | 0.00 |
| R - Arts, entertainment and recreation | 1.000 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| S - Other service activities | 0.185 | 0.30 | 0.00 | 0.00 | 0.15 | 0.40 | 0.10 |
| T - Activities of households as employers; undifferentiated goods- and services-pr | 0.020 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 |
| U - Activities of extraterritorial organizations and bodies | 0.020 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 |

Table A.4.1 Investment issues in ASEAN Countries

| Category | 2009 | | | | | | | | | 2008 | | | | | | | | | 2005 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Issues | Indonesia | Malaysia | Philippines | Singapore | Thailand | Cambodia | Laos | Myanmar | VietNam | Indonesia | Malaysia | Philippines | Singapore | Thailand | Cambodia | Laos | Myanmar | VietNam | Brunei | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam |
| **i) Restrictions on foreign entry** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Existence of prohibition and restriction on foreign entry | ○ | ○ | ○ | | ○ | | | | | ○ | | ○ | | ○ | | | | | | ○ | | ○ | | ○ | ○ |
| Restriction on foreign entry for specific sector: distribution service sector | ○ | | | | | | | | ○ | ○ | | | | | | | | ○ | | ○ | | | | | ○ |
| Restriction on foreign entry for specific sector: coal mining industry | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | | |
| Restriction on foreign entry for specific sector: retail trade | ○ | | ○ | | | | | | ○ | ○ | | ○ | | | | | | ○ | | | | ○ | | | |
| Restriction on foreign entry for specific sector: no allowance of establishment of branches of general | | | ○ | | | | | | | | ○ | | | | | | | | | | | | | | |
| Restriction on entry for specific sector: license requirement in the construction industry (license required only for foreign firms; no issuance of licenses for foreign-owned firms with more than 40% | ○ | ○ | ○ | | ○ | | | | | ○ | ○ | ○ | | ○ | | | | | | | | ○ | | | |
| Restriction on foreign entry for specific sector: license requirement for integration, closing down, and movement of servives centers | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | | |
| Restriction on foreign entry for specific sector: stop of registration and renewal of licenses for trade | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | | |
| Restriction on entry for specific sector: licensing of transport business allowed only to a single company (monopoly with a company runned by the former prime minister's family, in exclusion of foreign and | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | |
| Restriction on entry for specific sector: limited approval of license for domestic sea freight distributor (discriminatory against foreign companies; exclusive approval of Filipino and Filipino wholly-owned | | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | |
| Prohibition on foreign entry for specific sector: bid on government procurement | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | |
| Restriction on foreign ownership ratio for specific sector: non-manufacturing sector (restrictions on various types of services such as distribution and marketing) | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | |
| Restriction on foreign ownership ratio for specific sector: service sector (restrictions on the majority-owned foreign firms) | ○ | | | | ○ | | | | | ○ | | | | ○ | | | | | | | | | | ○ | |
| Restriction on foreign ownership ratio for specific sector: linked with export ratio | ○ | | ○ | | | | | | | ○ | | ○ | | | | | | | | | | ○ | | | |
| Joint venture issue: restrictions on foreign ownership ratios and joint venture requirement (including reduction in maximum foreign ownership ratios) | ○ | | | | | | | | | ○ | | | | | | | | | | | | | | | ○ |
| Joint venture issue: joint venture requirement with a state enterprise politically | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | | |
| Minimum foreign capital requirement | | | | | ○ | | | ○ | | | | | | ○ | | | ○ | | | | | | | ○ | |
| Land ownership and use: restrictions on (prohibition of) land ownership by foreign-owned firms | ○ | | ○ | | ○ | | | | ○ | ○ | | ○ | | ○ | | | | ○ | | ○ | | ○ | | ○ | ○ |
| Land ownership and use: a lump-sum payment of land-use fee, implemented only for foreign-owned | | | | | | | | | | | | | | | | | | ○ | | | | | | | ○ |
| Restructions on the form of establishment of offices to support branches and affiliates | | | | | ○ | | | | | | | | | ○ | | | | | | | | | ○ | | |
| Discriminatory treatment on Japanese firms vis-à-vis U.S. firms | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | |
| **ii) Performance requirements** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Home country insurance principle (obligation) | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | |
| Local content requirement: link between local content ratio and tariff rate | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | ○ |
| Local content requirement: exclusion of foreign-owned firms from domestic procurement | | | | | | | | | | | | | | | | | | | | | ○ | | | | |
| Local content requirement: requirement to use local firms (Bumiputra firms) | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | |
| Local content requirement: planning of local content requirement policy for automobiles | | | | | | | | | | | | | | | | | | | | | | | | | ○ |
| Local content requirement: requirement for increasing local content ratios | ○ | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | ○ |
| Local content requirement: insufficient ability of indigenous firms to satisfy local content requirement | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | | |
| Local content requirement: difficulty in satisfying the requirement for EPZ firms to obtain import duty exemption for parts | | | | | ○ | | | | | | | | | | | | | | | | | | | | |
| Performance requirements such as the amount of investment, export, production, etc. (including export | | | | | | | | | | | | | | | | | | | | | ○ | | | | ○ |
| High percentage of direct exporting obligation | | | | | | | | | | | | | | | | | | | | | ○ | | | | |
| Link with preferential treatment: requirement to hire local labors | | | | | ○ | | | | | | | | | ○ | | | | | | | | ○ | | | |
| Link with preferential treatment: export ratio (export requirement) | | | | | ○ | | | | | | | | | ○ | | | | | | | | ○ | | ○ | |
| Link with preferential treatment: technological transfer requirement | | ○ | | | | | | | | | | | | | | | | | | | | | | | |
| Government licensing requirement for royalty, brand-use fee, etc | | | | | | | | | | | | | | | | | | | | | | | | | ○ |
| Enforcement of obligation to conduct continuing exploration and survey for coal mine rights ownership | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | | |
| **iii) Restrictions on overseas remittances and controls on foreign currency transactions** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Restriction on overseas remittances: difficulty in remittances of compensation for intangible assets and services in foreign currencies | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | | |
| Restriction on overseas remittances: reinforcement and lack of transparency in restrictions on remittances in foreign currencies | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | | ○ |
| Restriction on overseas remittances: restrictions on upper bound of in-advanve payment | | | ○ | | | | | | | | | ○ | | | | | | | | | | | | | |
| Restriction on overseas remittances: difficulty in overseas remittance of the payment for foreign | | | | | | | | | | | | | | | | | | | | | | | | | |
| Restriction on overseas remittances: partly | | | | | | | | | | | | | | | | | | | | | | ○ | | | |
| Restriction on overseas remittances: prohibitive tax imposed on remittances (including tax on profit | | | | | | | | | | | | | | | | | | | | | | | | ○ | ○ |
| Control related to local currency: control on local currency transactions in offshore market | ○ | | | | ○ | | | | | | | | | ○ | | | | | | ○ | ○ | | | | |
| Control related to local currency: restricted financing in Baht for non-residents | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Sudden introduction and modification of foreign exchange transaction controls | | | | | | | | | | | | | | | | | | | | | ○ | | | | |
| Double exchnage rates | | | | | | | | ○ | | | | | | | | | | | | | | | | | |
| Foreign currency transactions: restrictions on having foreign currencies | | | | | | | | | | | | | | | | | | | | | ○ | | | | |
| Foreign currency transactions: restrictions on having and using foreign currencies in the domestic | | | | | ○ | | | ○ | | | | | | | | | ○ | | | | ○ | | | | |
| Foreign currency transactions: requirement to obtain foreign currencies from exports to get import | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | | |
| Foreign currency transactions: difficulty in foreign exchange settlement and foreign payment | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | ○ |
| Foreign currency transactions: restriction on the way of using foreign currency deposits | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | |
| Foreign currency transactions: restriction on the withdrawal through foreign currency accounts | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | | |
| Difficulty in currency hedging（including forward exchange contracts of PE status) | ○ | ○ | ○ | | ○ | | | | | | ○ | ○ | | | | | | | | | | | | | |
| Restriction on "netting" | | | | | | | | ○ | | | | | | | | | ○ | | | | ○ | | | | |
| Royalty payment: restrictions on royalty and strict method of calculating royalty | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | |
| Royalty payment: exclusion of imported parts, etc. from royalty calculation | | | | | | | | | | | | | | | | | | | | | | | | | ○ |

(Continue)

| Category / Issues | 2009 Indonesia | 2009 Malaysia | 2009 Philippines | 2009 Singapore | 2009 Thailand | 2009 Cambodia | 2009 Laos | 2009 Myanmar | 2009 VietNam | 2008 Indonesia | 2008 Malaysia | 2008 Philippines | 2008 Singapore | 2008 Thailand | 2008 Cambodia | 2008 Laos | 2008 Myanmar | 2008 VietNam | 2005 Brunei | 2005 Indonesia | 2005 Malaysia | 2005 Philippines | 2005 Singapore | 2005 Thailand | 2005 Vietnam |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **iv) Restrictions on the movement of people and employment requirements** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mandatory employment of local labor: general | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | | |
| Mandatory employment of local labor: employment of Malaysians with a priority (including request for handover of managing directorship) | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | |
| Mandatory employment of local labor: nationality requirement of directors (including president and board members in investment trust companies) | | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | ○ | |
| Restriction on hiring foreigners: employment quota for foreigners or restriction on foreign employment | | | | ○ | ○ | | | | | | | | ○ | ○ | | | | | | | ○ | | ○ | ○ | ○ |
| Restriction on hiring foreigners: modification and tightening of policies regarding foreign workers | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | |
| Restriction on hiring foreigners: restriction on hiring and visa issuance to mainland Chinese workers | | | | | | | | | | | | | | | | | | | | | | | | | |
| Visa issue: discontinued issuance of multiple-entry visa | | | | | | | | | | | | | | | | | | | | | | | | | |
| Visa issue: application fee for re-entry | | | | | | | | | | | | | | | | | | | | | | | | | |
| Visa issue: difficulty in obtaining working visa, tightening of issuance condition (including cases of certain engineering or investors only), restriction on visa issuance | | | | | ○ | | | | ○ | | | | | ○ | | | | ○ | | | ○ | | | ○ | ○ |
| Visa issue: tightening of visa renewal (difficulty in renewal of multiple-entry visa; including suspension of renewal procedures in US) | | | | | | | | | | | | | | | | | | | | | | ○ | | ○ | |
| Visa issue: restricted entry by SMEs due to prerequisite conditions for working visa issuance | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Visa issue: no work permit under foreign temporary workers for construction engineering | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Visa issue: introduction of obligation to obtain entry visa | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | | |
| Visa issue: inconsistent procedures for visa application among embassy and consulates | | | | | ○ | | | | | | | | | | | | | | | | | | | | |
| Discriminate period of residency permit between those with and without university degree | | | | | | | | | | | | | | | | | | | | | | | ○ | | |
| **v) Lack of transparency in policies and regulations concerning investment (institutional problems)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Underdevelopment, lack of transparency, and delay of implementation of regulations (inadequate implementing regulations and prolonged delays in their issuance): general | ○ | | | | | ○ | | ○ | | ○ | | | | | ○ | | ○ | | | ○ | | | | | |
| Underdevelopment of legal system: implementation rules of EPA | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | | |
| Underdevelopment of legal system: stock market and credit market | | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | |
| Underdevelopment of legal system: regulations on mortgage, lien, and hypothec | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | ○ |
| Underdevelopment of legal system: financial system such as credit transactions | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | |
| Underdevelopment of legal system: foreign exchange system (double exchange rates) | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | | |
| Underdevelopment of legal system: exchange contract | | | | | | | | | | | | | | | | ○ | | | | | | | | | |
| Underdevelopment of legal system: temporary system of opening governments' windows responsive to emergency imports | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | |
| Underdevelopment of legal system: insufficient economic system based on domestic currencies | | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | |
| Underdevelopment of legal system: re-organization of operations | | | | | | | | | | | | | | ○ | | | | | | | | | | | |
| Underdevelopment of legal system: unreasonable requirement of signature for imported products under | | | | | | | | | ○ | | | | | | | | | | | | | | | | |
| Underdevelopment of legal system: delay in issuing domestic regulations for ASEAN Cosmetic | ○ | | | | | | | | | | | | | | | | | | | | | | | | |
| Underdevelopment of legal system (insufficiency): Corporate Separation Law and merger law | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Underdevelopment of legal system (insufficiency): Building Law, and Fire Defence Law, and related | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Underdevelopment of legal system (insufficiency): legislation about handling of chemicals and | | | | | | | | | | | | | | ○ | | | | | | | | | | ○ | |
| Underdevelopment of legal system (insufficiency): regulations on dishonor | | | | | | | | | | | | | | ○ | | | | | | | | | | ○ | |
| Underdevelopment of legal system (insufficiency): inadequate ax-related dispute settlement by the third | ○ | | | | | | | | | | | | | | | | | | | | | | | | |
| Underdevelopment of legal system (insufficiency): double taxation due to lack of tax treaty | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | | |
| Underdevelopment of legal system (inadequacy): inadequate protection of depositors | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Underdevelopment of legal system (inadequacy): obligation of issuing official receipts | | | | | | | | | ○ | | | | | | | | | | | | | | | | |
| Underdevelopment and inconsistent implementation of legal system (insufficiency): foreign exchange law and taxation system | | | | | | | | | | | | | | ○ | | | | | | | | | | ○ | |
| Lack of transparency in legal system: disapproval criteria of tax investigation | ○ | | | | | | | | | | | | | | | | | | | | | | | | |
| Lack of transparency in legal system: complicated labor law | ○ | | | | | | | | | | | | | | | | | | | | | | | | |
| Lack of transparency in legal system: ownership of land and its utilization system | | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | |
| Lack of transparency in legal system: restrictions on equity transfer for joint venture companies | | | | | | | | | | | ○ | | | | | | | | | | | | | | |
| Lack of transparency in legal system: regulations on tax laws | | | | | | | | | | | | | | | | | | | | ○ | | | | | |
| Lack of transparency in legal system: investment incentives | ○ | | ○ | | | | | | | ○ | | ○ | | | | | | | | | | ○ | | | |
| Lack of transparency in legal system: withdrawal rules | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Lack of transparency in legal system: conditions of employment | | | | | | | | | | | | | | | | | | | | | | | | ○ | |
| Lack of transparency in legal system: licenses and approvals for construction | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | |
| Lack of transparency in legal system: an introduction of international practices | | ○ | | | | | | | | | ○ | | | | | | | | | | | | | | |
| Lack of transparency in legal system: disclosure of information on changes in regulations | | ○ | | | | | | ○ | | | ○ | | | | | | ○ | | | | | | | | |
| Lack of transparency in legal system: conditions on application for contract of technicaal assistance | | | | | | | | | | | ○ | | | | | | | | | | | | | | |
| Ambiguity of legal system: the date to start digital broadcasting | | ○ | | | ○ | | | | | | | | | | | | | | | | | | | | |
| Ambiguity of legal system: disparity of tariff rates among similar products | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | | |
| Ambiguity of legal system: introduction of emission control regulations (including unrealistic policies) | | | | | | | | | | | | | | | | | | | | ○ | | | ○ | | |
| Ambiguity of legal system: foreign exchange laws | | ○ | ○ | | | | | | | | ○ | ○ | | | | | | | | | ○ | | | | |
| Ambiguity of legal system: export restrictions | | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | |
| Ambiguity of legal system: detailed information on market research in expanding business | | | | | | | | | ○ | | | | | | | | | | | | | | | | |
| Ambiguity of legal system: inconsistency between country's tariff classification and ASEAN's | | | | | | | | | ○ | | | | | | | | | | | | | | | | |
| Ambiguity of legal system: definition of tariff classification (items) | | | | | | | | | ○ | | | | | | | | | | | | | | | | |
| Ambiguity of legal system: treatment of reinvoice under the third-country FTA | | | | | ○ | | | | | | | | | | | | | | | | | | | | |
| Ambiguity of legal system: method to calculate tax | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | | |
| Ambiguity of legal system: government procurement procedures | | | | | | | | | | | | | | | | | | | ○ | | | | | | |
| Ambiguity of legal system: approval and license procedures by administrative institutions | | | | | | | | | | | | | | | | | | | | ○ | | | | | |
| Ambiguity of legal system: approval and license criterion of investment-related regulations | | | | | | | | ○ | ○ | | | | | | | | ○ | ○ | | | | | | | ○ |
| Ambiguity of legal system: partnership requirement | | | | | | | | | | | | | | | | | | | | ○ | | | | | |
| Ambiguity of legal system: criteria and details of approval for divestment obligation | ○ | | | | | | | | | | | | | | | | | | | | | | | | |
| Ambiguity of legal system (insufficiency): regulations on disposal of industry wastes | | | | | | | | | | | | | | | | | | | | | ○ | | | | |
| Ambiguity of legal system (insufficiency): tariff classification for parts and components | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | ○ |
| Lack of implementation of legal system: environmental control | | | | | | | | | | | | | | | | | | | | ○ | | | | | |
| Sudden modification of legal system: general (including absence of legal stability) | | | | | | | | | | | | | | | | | | | | ○ | | ○ | | | |
| Sudden modification of legal system: capital control and other controls | | | | | | | | | | | | | | | | | | | | | ○ | | | | |
| Sudden modification of legal system: incentives for foreign investors | | | | | | | | | | | | | | | | | | | | | | | | | ○ |
| Sudden modification of legal system: raising of import tariffs | | | | | | | | | ○ | | | | | | | | | ○ | | | ○ | | | | |
| Sudden modification of legal system (introduction): new tax (value-added tax for export processing | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | |
| Sudden modification of legal system: custom clearance (e-custom clearance) | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | | |
| Sudden modification of legal system (setting): sudden setting of holidays | ○ | | ○ | | | | | | | ○ | | ○ | | | | | | | | | | ○ | | | |
| Sudden modification of legal system: issues of laws and regulations without sufficient period for | | | | | | | | | ○ | | | | | | | | | | | | | | | | |
| Sudden modification of legal system: reduction of export incentives | | | | | | | | | ○ | | | | | | | | | ○ | | | | | | | |
| Sudden modification of legal system: crieria to prepare financial statements | | | ○ | | | | | | | | | ○ | | | | | | | | | | | | | |
| Sudden and frequent modification of legal system: laws and notices (general) | ○ | | | | | | | | | ○ | | | | | | | | ○ | | | | | | | ○ |
| Modification and publicity of legal system: difficulty in accessing information on regulations and | | ○ | | | | | | | | | | ○ | | | | | | | | | | ○ | | | |
| Instability of legal system: instable foreign capital law and definition of foreingers | | | | | ○ | | | | | | | | | | | | | | | | | | | | |
| Instability of legal system: possible changes in investment incentives | | ○ | | | | | | | | | | ○ | | | | | | | | | | | | | |
| Instability of legal system: automobile-related taxation system | | | | | | | | | ○ | | | | | | | | | ○ | | | ○ | | | | |
| Instability of legal system: tax holiday regime | | | | | | | | | | | | | | | | | | | | ○ | | | | | |
| Instability of legal system: possible tightning regulations on market access to the retail firms | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | | |
| Instability of legal system: regulations on foreign workers | | ○ | | | | | | | | | ○ | | | | | | | | | | ○ | | | | |
| Instability of legal system: possible regulations inconsistent with WTO (requirements on investment | | | | | ○ | | | | | | | | | ○ | | | | | | | | | | | |

(Continue)

| Category<br>Issues | 2009 Indonesia | 2009 Malaysia | 2009 Philippines | 2009 Singapore | 2009 Thailand | 2009 Cambodia | 2009 Laos | 2009 Myanmar | 2009 VietNam | 2008 Indonesia | 2008 Malaysia | 2008 Philippines | 2008 Singapore | 2008 Thailand | 2008 Cambodia | 2008 Laos | 2008 Myanmar | 2008 VietNam | 2005 Brunei | 2005 Indonesia | 2005 Malaysia | 2005 Philippines | 2005 Singapore | 2005 Thailand | 2005 Vietnam |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unsatisfactory quality of local parts and components due to insufficient regulations and standards | | | | | | | | | | | | | | | | | | | | | O | | | | |
| Taxation issue: extremely high value-added taxs | | | O | | | | | | | | | O | | | | | | | | | | | | | |
| Taxation issue: elimination of tax exemption for imported equipments and imposition of corporate tax | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Taxation issue: tax withholding for PE and inter-branch transactions | | | | | | | | | | | | | | | | | | | | | O | | | | |
| Taxation issue: tax exemption discriminatory between national and non-national cars | | O | | | | | | | | | O | | | | | | | | | | O | | | | |
| Taxation issue: contradictive interpretation of definition of residents under revised income tax law | | | | | | | | | O | | | | | | | | | | | | | | | | |
| Taxation issue: high commodity tax, registration fee, owner fee and for automobiles | | | O | | | | | | | | | | | | | | | | | | | | | | |
| Taxation issue: conformity requirement on accounting and tax service | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Taxation issue: inadequate reserve criteria for taxation regulations | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Taxation issue: persisting system of corporate tax withholding from supporting industry firms | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Taxation issue: tax on surplus remittances | | | | | O | | | | | | | | | O | | | | | | | | | | O | |
| Taxation issue: commercial and export tax (local production and exports and imports) | | | | | | | | O | | | | | | | | | O | | | | | | | | |
| Taxation issue: rent tax (real estates) | | | | | | | | O | | | | | | | | | O | | | | | | | | |
| Taxation issue: no application of preferential treatment of tax treaties (exemption of corporate tax at the source for subcontractors) | | | | | | | | | | | | O | | | | | | | | | | | | | |
| Taxation issue: conditions on application of exise tax linked with incentive measures (eco-car policy) | | | | | O | | | | | | | | | O | | | | | | | | | | | |
| Taxation issue: tax on adverse spread | | | | | | | | | | | | | | O | | | | | | | | | | | |
| Taxation issue: no application of reinbursement of commodity tax for imported parts | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Taxation issue: long-term retroactive period for tax investigation | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Safety and environmental standards and certification issue: inadequate safety evaluation standards | | | | | | | | | | | | | | | | | | | | O | O | O | | | |
| Safety and environmental standards and certification issue: insufficient regulations on anti-air pollution | | | | | | | | | | | | O | | | | | | | | | | O | | | |
| Safety and environmental standards and certification issue: unique technical standard and safety certification (iron and steel, plug etc) | | | | | O | | | | | | | | | O | | | | | | | | | | | |
| Safety and environmental standards and certification issue: inconsistency with the International | | | | | O | | | | | | | | | O | | | | | | | | | | | |
| Safety and environmental standards and certification issue: unreasonable standard of waste water treatment and waste water quality management | O | O | | | | | | | | | | | | | | | | | | | | | | | |
| Safety and environmental standards and certification issue: unreasonable tightning of regulations for | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Depreciation issue: long depreciation period | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Depreciation issue: lack of exemplification of designated products (ambiguity) | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Import restriction: import restriction by import quota and import licensing (build-up car, steel, and color | | O | | | | | | | | | O | | | | | | | | | | | | | | |
| Import restriction: difficulty in obaining import licenses | O | | | | | | | | O | | | | | | | | | O | | | | | | | |
| Import restriction: import restriction on final products by manufacturing firms | | | | | | | | | | | | | | | | | | | | | | | | | O |
| Export restriction | | | | | | | | | O | | | | | | | | | O | | | | | | | |
| Unilateral abrogation of international commitments | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Long-term procedures for labor dispute | O | | | | | | | | | | | | | | | | | | | | | | | | |
| Limited tariff exemption for companies in the Special Economic Zones | | | | | | | | | | | | | | | | | | | | | | O | | | |
| Unreasonable regulations and regulations without considering technological development trend | | | O | | | | | | | | | O | | | | | | | | | | O | | O | |
| Cap on surplus reserve | | | | | | | | | | | | O | | | | | | | | | | O | | | |
| Unilateral review of PPA | | | | | | | | | | | | | | | | | | | | | | O | | | |
| **vi) Complicated and/or delayed procedures with respect to investment-related regulations (implementation problems)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Complicated procedures: regimes general | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Complicated procedures: procedures for transactions of bonded goods between trade-processing firms | O | | | | | | | | | | | | | | | | | | | | | | | | |
| Complicated procedures: procedures for equipment lease and rental certification | | | | | | | | | O | | | | | | | | | O | | O | | | | | |
| Complicated procedures: procedures for overseas remittances | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Complicated procedures: purchasing procedures of foreign currencies | O | | | | | | | | | | | | | | | | | | | | | | | | |
| Complicated procedures: approval and license procedures for merge, dissolution, or relocation of the | | | | | O | | | | | | | | | O | | | | | | | | | | O | |
| Complicated procedures: renewal of import licensing (short period in effective) | | | | | | | | O | | | | | | | | | O | | | | | | | | |
| Complicated procedures: preparation of invoices of imported materials for each incentives | | | | | O | | | | | | | | | | | | | | | | | | | | |
| Complicated procedures: obligation of pre-registration of import quota for parts that can not be | O | | | | | | | | | | | | | | | | | | | | | | | | |
| Complicated procedures: pre-shipment inspection | O | | | | | | | | | | | | | | | | | | | | | | | | |
| Complicated procedures: bidding rules for joint venture with state owned enterprises (application of | | | | | | | | | O | | | | | | | | | O | | | | | | | |
| Complicated procedures: signiture requirements to documents submitted to government agencies and | | | | | O | | | | | | | | | O | | | | | | | | | | | |
| Complicated procedures: procedures for exception of import tariffs | | O | | | | | | | | | O | | | | | | | | | | | | | | |
| Complicated procedures (too-detailed): BOI approval and reporting procedures | | | | | O | | | | | | | | | O | | | | | | | | | | O | |
| Complicated procedures (too-detailed): procedures for BOI tax exemption for reexports | | | | | O | | | | | | | | | | | | | | | | | | | | |
| Complicated procedures (too-detailed): import licensing procedures | | | | | | | | | | | | | | | | | | | | | | | | | O |
| Complicated procedures (too-detailed): tax payment procedures for taxation at the source | | | | | O | | | | | | | | | O | | | | | | | | | | | |
| Complicated procedures (too-detailed): obtaining export and import licensing | | | | | | | | | | | | | | | | | | O | | | | | | | |
| Complicated procedures: tax payment registration for foreign individuals | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Complicated procedures (including uniqueness): state customs clearance procedures | | | | | | | | | | | | | | | | | | | | | O | | | | |
| Complicated and delayed procedures: customs clearance (including clearance certificate requirement, | | | | | O | O | | O | O | | | | | O | O | | O | O | | O | O | O | | O | O |
| Complicated and deleyed procedures: conformity and assessment | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Complicated and delayed procedures: procedures to apply for working visa and its renewal (including | O | O | O | | O | | | | O | O | O | O | | O | | | | O | | O | O | O | | O | O |
| Complicated and delayed procedures: tax regulations-related procedures | O | | O | | | | | | | O | | O | | | | | | | | O | | | | | |
| Complicated and delayed procedures: EPTA procedures | O | | | | | | | | | O | | | | | | | | | | O | | | | | |
| Complicated and delayed procedures: import tariff reimbursement and tax exemption procedures | | O | | | O | | | | | | O | | | O | | | | | | | O | | | O | |
| Complicated and delayed procedures: export bounty coupon issuance procedures | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Complicated and delayed procedures: government approval procedures for withdrawal | | O | | | | | | | O | | O | | | | | | | O | | | | | | O | O |
| Complicated and delayed procedures: BOI export and import approval and reporting procedures for products, materials, equipments, defective products and rejected materials | | | | | O | | | | | | | | | O | | | | | | | | | | O | |
| Complicated and delayed procedures: patent registration application procedures | | | | | O | | | | | | | | | O | | | | | | | | | | | |
| Delayed procedures: import custom clearance and cargo inspection (including uncertainty) | | O | O | | | | O | | O | | O | O | | | | | | O | | | | | | | |
| Delayed procedures: AICO approval procedures | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Delayed procedures: procedures to obtain permissions (general) | | | | | | | | O | O | | | | | | | | O | O | | | | | | | |
| Delayed procedures: deleyed procedures to transfer licensing permit from central government to | O | | | | | | | | | | | | | | | | | | | | | | | | |
| Deleyed procedures: stock reshuffle procedure | O | | | | | | | | | | | | | | | | | | | | | | | | |
| Delayed procedures: certificate procedures for CEPT | | O | | | | | | | | | O | | | | | | | | | | | | | | |
| Delayed procedures: oversea payment | | | | | | | | O | | | | | | | | | O | | | | | | | | |
| Delayed procedures: permission of oversea remittance | | | | | | | | O | | | | | | | | | O | | | | | | | | |
| Delayed procedures: renewal of import licensing and automatic import licensing | | | | | | | | | O | | O | | | | | | | | | | O | | | | |
| Delayed procedures: safety standard and assessment | | | | | O | | | | | | | | | | | | | | | | | | | | |
| Delayed procedures: judgement of non-application of PE | | | | | O | | | | | | | | | O | | | | | | | | | | | |
| Delayed procedures: issuing final settlement of tax | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Delayed procedures: approval procedures for technology transfer | | | | | | | | | | | | | | | | | | | | | | | | | O |
| Delayed procedures: production license issuance (partial) | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Delayed procedures: examination of safety qualification | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Delayed procedures: civil execution procedures | | | | | O | | | | | | | | | | | | | | | | | | | | |
| Delayed procedures (including difficulty): procedures for waste disposal (and its renewal) | | | | | | | | | | | | O | | | | | | | | | | O | | O | |
| Delayed procedures (including difficulty): procedures for prepayment of corporate tax reimbursement | O | | | | | | | | | O | | | | | | | | | | O | | | | | |
| Delayed procedures (including difficulty): difficulty in obtaining AICO approval | | | | | | | | | O | | | | | | | | | O | | | | | | | O |
| Delayed procedures (including difficulty): renewal of business license | | | | | | | | O | | | | | | | | | O | | | | | | | | |
| Delayed procedures (including non-refunding and difficulty): value-added tax reimbursement | O | | O | | O | | | | | O | | O | | O | | | | | | O | | O | | O | |
| Delayed procedures (including non-refunding): corporate withholding tax reimbursement procedures | | | | | O | | | | | | | | | O | | | | | | | | | | O | |

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| Category / Issues | 2009 | | | | | | | | | 2008 | | | | | | | | | 2005 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Indonesia | Malaysia | Philippines | Singapore | Thailand | Cambodia | Laos | Myanmar | VietNam | Indonesia | Malaysia | Philippines | Singapore | Thailand | Cambodia | Laos | Myanmar | VietNam | Brunei | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam |
| Difficulty in procedures: corporate tax advance declaration and payment procedures | |O| | | | | | | | |O| | | | | | | | | |O| | | | |
| Inefficiency of procedures (including corruption): investment approval procedures |O| | | |O| | | | |O| | | |O| | | | | |O| |O| | | |
| Inefficiency of procedures (including corruption): obtaining licenses for operations in the construction | | |O| | | | | | | | |O| | | | | | | | | | | | | |
| Disunity of procedures: inconsistent procedures and interpretation among administrative officials | |O|O| | | | | | | | |O| |O| | | | | | | |O| |O| |
| Complicated corporate tax prepayment system |O| | | | | | | | |O| | | | | | | | | |O| | | | | |
| Complicated banking business resulting from the regulations requiring banking transactions in rupiah |O| | | | | | | | |O| | | | | | | | | |O| | | | | |
| Complicated offsetting of debtors and creditors account in foreign trade transactions | | | | |O| | | | | | | | |O| | | | | | | | | |O| |
| Complicated handling of BOI incentives | | | | | | | | | | | | | | | | | | | | | | | |O| |
| Complicated approval and licensing for automobile price | | | | | | | | | | | | | | | | | | | | |O| | | | |
| Complicated L/C import system (iron and steel products) | | |O| | | | | | | | |O| | | | | | | | | |O| | | |
| Insufficient enforcement of environmental protection | | | | | | | | |O| | | | | | | | |O| | | | | | | |
| Security and environment standard, standard recognition issue: regorousness of marking systems | | | | |O| | | | | | | | | | | | | | | | | | | | |
| Security and environment standard, standard recognition issue: obligation to acquisition the Philippines | | |O| | | | | | | | | | | | | | | | | | | | | | |
| Ambiguous implementation of antitrust law | | | | | | | | | | | | | | | | | | | | | | | |O| |
| Arbitrary application of system: disunity of legal interpretation and implementation (including disunity and inconsistency of implementation of product safety certification system, excessive power of local |O|O| | |O| | | | | |O| | |O| | | | | | |O| | |O|O|
| Arbitrary application of system: diversity of implementation and interpretation by customs (including arbitrary tariff classification and tariff evaluation, difference with international rules, inequity of tariff |O|O| | | | | | | |O|O| | |O|O|O| |O| |O|O|O| |O| |
| Arbitrary application of system: arbitrary corporate tax examination | | | | |O| | | | | | | | |O| | | | | | | | | |O| |
| Arbitrary application of system: arbitrary and corrupt tax collection (including back taxes and tax on business corporations) |O| | | |O| | | | |O| |O| | |O| | | | |O| |O| |O| |
| Arbitrary application of system: extension of vaild period of license for air forwarder | | |O| | | | | | | | |O| | | | | | | | | | | | | |
| Inflexible application of systems: judgement of application fees imposed by customs |O| | | | | | | | | | | | | | | | | | | | | | | | |
| Disunity of legal interpretation for application of system: rules of origin | | | | |O| | | | | | | | |O| | | | | | | |O| | | |
| Inconsistent interpretation of legal system: inconsistent requirements among customs in accepting ASEAN's Certificate of Origin | | | | | | | | |O| | | | | | | | | | | | | | | | |
| Disunity of legal interpretation for application of system: acquisition of indigenous rights for land-use | | | | | | | | | | | | | | | | | | | | | |O| | | |
| Disunity of regulations, controls, and legal interpretation for application among relevant ministries and | | | | | | | | | | | | | |O| | | |O| | | | | |O| |
| Disunity of legal interpretation for application of system: discriminately application for foreigners of a | | | | | | | | |O| | | | | | | | |O| | | | | | | |
| Insufficient notification and understanding of changes in legal systems and procedures among | | | | | | | | |O| | | | | | | | | | | | | | | | |
| Inconsistent interpretation of regulations and laws among related officials | | |O| | | | | | | | | | | | | | | | | | | | | | |
| Insufficient legal enforcement (insufficient announcement of EPA Certification of Origin procedure) |O|O| | |O| | | |O| | | | | | | | | | | | | | | | |
| Inconvenience of centralized authorization rights (including disapproval of PROSEC licensing | | | | | | | | | | | | | | | | | | | |O| | | | | |
| Special personal connection and political bribery and corruption of public savants (including collusion and corruption in customs) |O| |O| | |O| | |O|O| |O| | |O| | |O| |O|O|O| | |O|
| Unanimous voting at the board meeting of joint ventures | | | | | | | | |O| | | | | | | | |O| | | | | | |O|
| Prohibitive port charge and departure tax |O| | | | | | | | | | | | | | | | | | |O| | | | | |
| Introduction of value-added tax to free trade zones | | | | | | | | | | | | | | | | | | | |O| | | | | |
| Heavy burden of value-added tax | | |O| | | | | | | | |O| | | | | | | | | |O| | | |
| Prohibitive individual income tax | | | | | | | | |O| | | | | | | | |O| | | | | | | |
| Income tax at the source for expensive expenses of the use | | | | | | | | | | | |O| | | | | | | | | | | | | |
| High luxury tax imposed on imported or domestically produced goods |O| | | | | | | | | | | | | | | | | | | | | | | | |
| Collection of technology promotion funds | | | | | | | | | | | | | | | | | | | |O| | | | | |
| Inconsistent tax collection | | | | | | | | |O| | | | | | | | |O| | | | | | |O|
| Irrational traffic regulation | | |O| | | | | | | | | | | | | | | | |O| | | | | |
| Business tax | | |O| | | | | | | | |O| | | | | | | | | | | | | |
| Difficulties in the process of reimbursement of prepaid tax and so on | | |O| | | | | | | | | | | | | | | | | | | | | | |
| Irrational payment due for public utility charges | | |O| | | | | | | | |O| | | | | | | | | | | | | |
| Irrationality of listed company provision | | | | | | | | | | | | | | | | | | | | |O| | | | |
| Existence of excessive regulations such as X-ray controls | | | | | | | | | | | | | | | | | | | | |O| | | | |
| Heavy burden of individual income tax | | | | | | | | | | | | | | | | | | | | | | | | |O|
| Restricted transfer of the equity share | | | | | | | | | | | | | | | | | | | | |O| | | | |
| Difficulty in obtaining plans of governments | | | | | | | | | | | | | | | | | | | | |O| | | | |
| Excessively strict foreign exchange control | | | | | | | | | | | | | | | | | | | | | | | |O| |
| Signature requirement for document submitted to government and other public offices | | | | | | | | | | | | | | | | | | | | | | | |O| |
| Discrimination against foreign firms provided by the Board of Investment | | | | | | | | | | | | | | | | | | | | | | | | |O|
| Rampant smuggling |O| | | | |O| |O|O| | | | | |O| |O|O| | | | | | |O|
| Rampant illegal import of used cars | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deemed tax valuation system | | | | | | | | | | | | | | | | | | | | | | | | |O|
| **vii) Insufficient protection of intellectual property rights (IPRs)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| IPRs: widespread counterfeit goods and pirated copy goods due to insufficient protection of IPRs |O| |O| |O| | | |O|O|O|O| |O| | | |O| |O|O|O| |O|O|
| IPRs: insufficient crackdown on counterfeit goods at the border (including Hong Kong customs case of watches), delayed appraisal during suspension of imports and uncertainty of disposal of seized articles | |O|O| | | | | | | |O|O| | | | | | | | |O| | | |O|
| Trademark right: underdeveloped and insufficient trademark right protection system | | | | | | | | | |O| | | | | | | | | |O| | | | | |
| **viii) Labor regulations and related practices excessively favorable to workers** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Difficulty in firing workers: retirement and firing reglations excessively protective for workers |O|O| | |O| | | |O|O|O| | |O| | | |O| |O| | | |O| |
| Difficulty in firing workers: judgment of a labor court | | |O| | | | | | | | |O| | | | | | | | | | | | | |
| Wage: absence of minimum wage system (no minimum wage system and high labor cost) | | | | | | | | | | | | | | | | | | | | |O| | | | |
| Wage: substantial raising, frequent and arbitrary revision and disparity control of minimum wage |O| |O| |O| | | |O|O| |O| |O| | | |O| |O| | | |O| |
| Wage: rapid increase in wage level (raising of labor cost) | |O| |O| | | | |O| |O| |O| | | | |O| | |O| |O| |O|
| Wage: disapproval of and difficulty in demotion and salary cut | |O| | |O| | | | | |O|O| |O| | | | | | | |O| | | |
| Strike: easy implementation of strike and long-term strike practices | | |O| | | | | | | | |O| | | | | | | |O| | | | | |
| Illegal strike | | | | | | | | |O| | | | | | | | |O| | | | | | | |
| Payment of costs for labor-related court | |O| | | | | | | | |O| | | | | | | | | | | | | | |
| Labor union issues: moderation of authorization to organize labor union | | |O| | | | | | | | | | | | | | | | | | | | | | |
| Restrictions on the period to hire temporary workers | | |O| | | | | | | | |O| | | | | | | | | | | | | |
| Irrational regulations on ages of young workers | | |O| | | | | | | | |O| | | | | | | | | | | | | |
| Labor-management agreement and practices excessively favorable to workers; difficulty in revision of conservative labor regulations and vested conditions of employment | | | | | | | | | | | | | | | | | | | | |O| | |O|O|
| Misuse of medical leave | | | | | | | | | | | | | | | | | | | | |O| | | | |
| Excessive holidays and/or work absence | |O| | | | | | | | |O| | | | | | | | | |O| | | | |
| Abuse of family and medical leave system | | | | | | | | | | | | | | | | | | | | | | | | | |
| Specificity of working time | | |O| | | | | | | | |O| | | | | | | | | |O| | | |
| Unreasonably high wage rates for working on holidays | | |O| | | | | | | | |O| | | | | | | | | |O| | | |
| Prohibition of employing contract workers | | |O| | | | | | | | |O| | | | | | | | | |O| | | |
| Restriction on transfer of insurance officials among companies | | |O| | | | | | | | |O| | | | | | | | | |O| | | |
| Greater burden of employees' pension | | | |O| | | | | | | | |O| | | | | | | | | |O| | |
| Burden of educational fund | | | |O| | | | | | | | |O| | | | | | | | | |O| | |
| Heavy burden of obligation to distribute taxable profits and profit sharing dividends to employees | | | | | | | | | | | | | | | | | | | | | |O| | | |

(Continue)

| Category | 2009 | | | | | | | | | 2008 | | | | | | | | | 2005 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Issues | Indonesia | Malaysia | Philippines | Singapore | Thailand | Cambodia | Laos | Myanmar | VietNam | Indonesia | Malaysia | Philippines | Singapore | Thailand | Cambodia | Laos | Myanmar | VietNam | Brunei | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam |
| **ix) Underdeveloped infrastructure, shortage of human resources, and insufficient investment incentives** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Difficulty in hiring and securing human resources due to shortage of management staff and engineers (including brain drain of IT engineers) | O | O | | O | | | O | | O | | O | | O | | | | | O | | O | O | O | O | O | |
| High turnover ratio and job hopping practices | O | O | O | O | | | | | | | O | O | O | O | | | | | | | | | O | O | |
| Infrastructure issue: underdeveloped (industrial) infrastructure (general) | | | | | | | | | | | | | | | | | | | | O | | O | | O | O |
| Infrastructure issue: increased risk of power shortages and electrical power supply (instability) | O | O | O | | O | O | | O | | O | O | O | | O | O | | O | O | | | O | | | | |
| Infrastructure issue: underdeveloped road and traffic | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | | | | | | | |
| Infrastructure issue: underdevelopment and lack of seaport infrastructure | O | | | | | | | O | O | O | | | | | | | O | O | | | | | | | |
| Infrastructure issue: inadequate spaces for railway and underdeveloped containerized railway | | | | | O | | | | | | | | | O | | | | | | | | | | | |
| Infrastructure issue: creaky existing infrastructure | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Infrastructure issue: poor public physical distribution services | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Infrastructure issue: underdeveloped intermediate distribution | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Infrastructure issue: inadequate public sanitation | O | | O | | | | | | | O | | O | | | | | | | | | O | | | | |
| Infrastructure issue: runaway cost of public utilities (instability) | | | | | | | | | | | | | | | | | | | | O | | | | | |
| Infrastructure issue: insufficiency and underdevelopment of waste disposals | | | | | | | | | O | | | | | | | | | O | | | | O | | | O |
| Infrastructure issue: delayed delivery due to traffic jam in cities | | | | | | | | | O | | | | | | | | | O | | | | | | | |
| Infrastructure issue: underdeveloped telecommunication infrastructure/roadband internet network access | | O | | | | O | | | O | | | O | | | | | | | | | | | | | |
| Infrastructure issue: insufficient air transport infrastructure | | | | | O | | | O | | | | | | O | | | O | | | | | | | | |
| Infrastructure issue：remarkable difference between a plan to develop logistics and the progress of | | | | | | | | | O | | | | | | | | | | | | | | | | |
| Incentives issue: disparity of incentives in the same zone due to project-by-project grant of BOI | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Incentives issue：shrinking of incentives for foreign investors according to the change of investment | | | | | O | | | | | | | | | | | | | | | | | | | | |
| Incentives issue: absence of investment incentives for the construction industry | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Incentives issue: insufficient incentives for existing foreign-owned firms | | | | | | | | | | | | | | | | | | | | | | | | O | |
| Incentives issue: insufficiency, shrinking and ambiguity of incentives for foreign investors (high-tec industry; petroreum gas, oil refinery, petrochemstry) | O | | | | | | | | | O | | | | | | | | | | O | | O | | | O |
| Incentives issue: insuffient excemption of import tariffs imposed on capital goods within economic | | | O | | | | | | | | | O | | | | | | | | | | | | | |
| Incentives issue：elimination of tax incentives for industrial park | | | | | | | | | O | | | | | | | | | | | | | | | | |
| Incentive issues: review of tax exemption for parts used in producing exports, which are subject to anti- | | | | | O | | | | | | | | | | | | | | | | | | | | |
| Incentive issues: application of investment allowance and reinvestment allowance only for | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Incentives issue: absence of incentives for parts manufacturer | | | | | | | | | O | | | | | | | | | O | | | | | | | O |
| Incentives issue: insufficient incentives for foreign finished car maker | | | | | | | | | | | | | | | | | | | | | | | | | O |
| Incentives issue: insufficient BOI tax incentives | | | | | O | | | | | | | | | | | | | | | | | | | O | |
| Incentives issue: insufficient tax incentives other than BOI incentives (corporate tax and withholding | | | | | O | | | | | | | | | | | | | | | | | | | | |
| Incentives issue: discriminatory favorable incentives for national cars | | O | | | | | | | | | O | | | | | | | | | | O | | | | |
| Insufficient incentive for nurture of supporting industries (including local industrial development | O | O | | | | | | | O | O | O | O | | | | | | O | | | | O | | | O |
| Issues of local suppliers in terms of delivery time and quality | | | | | | | | | | | | | | | | | | | | | | | | | O |
| High tax rate: corporate tax | | | | | | | | | | | | | | | | | | | | O | | | | | |
| High tax rate: individual income tax | | | | | | | | | O | | | | | | | | | O | | O | | | | | |
| Financial market: immature financial market | | | | | | O | | | O | | | | | | O | | | O | | | | O | | | O |
| Financial market: underdeveloped foreign currency exchange system | | | | | | O | O | O | | | | | | | O | O | O | | | | | O | | | |
| Financial market: underdeveloped capital market | | | | | | O | | | | | | | | | O | | | | | | | | | O | |
| Insufficiency of medical institutions | | | | | | | | | | | O | O | | | | | | | | | | O | | | |
| Public security: frequent occurrence of theft | | | O | | | | | | | | O | O | | | | | | | | | | | | | |
| Political instability | | | | | O | | | | | | | | | | | | | | | | | | | | |
| Undeveloped system to prevent disasters: Strength of Buildings, Bird flu, Dengue fever | O | | | | | | | | | | | | | | | | | | | | | | | | |
| **x) Restricted competition and price controls** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Monopoly / unilateral increase in price of energy supply | | | | | | | | | | O | | | | | | | | | | O | | | | | |
| Descriminatory high pricing for electricity, water, diesel for industrial use | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Discriminatory rise in fuel price for industrial use | O | | | | | | | | | O | | | | | | | | | | O | | | | | |
| Excessive government intervention for pricing systems：standard export pricing and obligation of domestic supply for coal | O | | | | | | | | | | | | | | | | | | | | | | | | |
| Ministrial regulation to allow price cap settings for electricity provided by state-owned power company | O | | | | | | | | | | | | | | | | | | | | | | | | |
| High price due to monopoly by the goverment: industrial waste disposal | | O | | | | | | | | | | | | | | | | | | | | | | | |
| Price reporting requirement to the Department of Commerce | | | | | O | | | | | | | | | O | | | | | | | | | | O | |
| Government-designated trading company system | | | | | | | | | O | | | | | | | | | O | | | | | | | O |
| Monopolistic pricing | | | | | | | | | O | | | | | | | | | O | | | | | | | O |
| Discriminate pricing for loads at ports | | | | | | | | | O | | | | | | | | | O | | | | | | | |
| Double pricing between domestic and foreign investment | | | | | | | | | | | | | | | | | O | | | | | | | | |

Data source: authors' preparation, based on JMC survery 2008 and Urata, Ando, and Ito (2007).

# CHAPTER 5

## Background Data for Constructing Quantitative Measures

This chapter consists of the list of the tables of the background data to develop the quantitative measures presented in previous chapters. The quantitative measures on free flow of services (Chapter 2) are based on the background data compiled by a team of researchers led by Dr. Philippa Dee, with close collaboration with country study members from research institutes in each ASEAN member country. The quantitative measures on free flow of goods (Chapter 2 and Chapter 3) consist of two parts. One is based on the background data compiled by a team of researchers led by Dr. Dee in the same way of the above, and the other is based on the background data estimated by Dr. Patricia Sourdin and Dr. Richard Pomfret. The quantitative measures on free flow of investment (Chapter 4) are based on the background data compiled by a team of researchers led by Dr. Shujiro Urata, with close collaboration with country study members from research institutes in each ASEAN member country. All tables are downloadable from the website of ERIA (http://www.eria.org).

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